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CATALOGUE
1923-1924



**Containing general information concerning the University,
Announcements for the Scholastic Year 1923-1924
and Records of 1922-1923**

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THE UNIVERSITY OF MARYLAND

CATALOGUE

1923-1924

Containing general information concerning the University, Announcements for the Scholastic Year 1923-1924, and Records of 1922-1923.

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UNIVERSITY CALENDAR 1923-1924

Unless otherwise indicated, this calendar refers to the activities at College Park.

FIRST SEMESTER

1923		
Sept. 17-18	Monday-Tuesday	Entrance Examinations. Registration for all students.
Sept. 17	Monday	The School of Law, Regular Session begins.
Sept. 19	Wednesday, 8.20 a. m.	Instruction for first term begins. No admission to classes without class cards.
Sept. 19	Wednesday, 11.20 a. m.	First Student Assembly. President's annual address.
Sept. 21	Friday, 8.00 p. m.	President's reception for new students.
Sept. 24	Monday	Last day to register or change registration without payment of additional fee.
		Last day to file schedule in Registrar's office without payment of fine.
Oct. 1	Monday	The School of Medicine. The School of Pharmacy. The School of Dentistry. College of Commerce and Business Administration. Extension Courses in Commerce.
		Regular Session begins.
Oct. 3	Wednesday	School for Nurses, Regular Session begins.
Nov. 9	Second Friday, 8 p. m.	Freshman Entertainment.
Nov. 12	Monday	Observance of Armistice Day.
Nov. 28	Wednesday, 12 m.	Thanksgiving recess begins.
Nov. 29	Thursday	The School of Medicine. The School of Law. The School of Pharmacy. The School of Dentistry. College of Commerce and Business Administration.
		Extension courses in Commerce.
		Thanksgiving Day. Holiday.
Dec. 4	Tuesday, 8.20 a. m.	Thanksgiving recess ends. Classes begin.

Dec. 7	Second Friday after Thanksgiving, 8 p. m.	Christmas Dance.
Dec. 15	Friday, 8.00 p. m.	Presentation by "The Players."
Dec. 21	Friday	The School of Medicine. The School of Law. The School of Pharmacy. The School of Dentistry. College of Commerce and Business Administration. Extension courses in Commerce. Christmas recess begins after last lecture period.
Dec. 22	Saturday, 12 m.	Christmas recess begins.
Dec. 22	Saturday	School for Nurses, Christmas Recess begins.
1924		
Jan. 2	Wednesday, 9.00 a. m.	The School of Medicine. The School of Law. The School of Pharmacy. The School of Dentistry. College of Commerce and Business Administration. Extension courses in Commerce. School for Nurses. Christmas recess ends. Lectures begin.
Jan. 8	Tuesday, 8.20 a. m.	Christmas recess ends. Classes begin.
Jan. 18	Friday, 8.00 p. m.	Entertainment by Glee Club.
Jan. 21-26	Monday-Saturday	Registration for second semester.
Jan. 28	Monday, 8.20 a. m.	First semester examinations begin.
Feb. 2	Saturday	First semester examinations end.

SECOND SEMESTER

Feb. 4	Monday, 8.20 a. m.	Classes begin. No admission to classes without class cards.
Feb. 12	Tuesday	Last day to register or change registration without additional fee. Last day to file schedule card in Registrar's office without payment of fine.
Feb. 15	Third Friday	Intersociety debate.
Feb. 22	Friday	Washington's Birthday. National holiday.
Mar. 25	Tuesday, 11.20 a. m.	Maryland Day exercises.

April 17	Thursday, 12 m.	Easter recess begins.
April 17	Thursday	The School of Medicine. The School of Law. The School of Dentistry. The School of Pharmacy. College of Commerce and Business Administration. Extension courses in Commerce. Easter recess begins after last lecture period.
April 22	Tuesday, 9.00 a. m.	The School of Medicine. The School of Law. The School of Pharmacy. The School of Dentistry. College of Commerce and Business Administration. Extension courses in Commerce. Easter recess ends.
April 23	Wednesday, 8.20 a. m.	Easter recess ends. Classes begin.
May 14	Wednesday	Festival of Music.
May 16	Third Friday, 8.30 p. m.	May Ball.
May 23	Friday, 8.00 p. m.	Presentation by "The Players."
May 30	Friday	Decoration Day. National Holiday.
June 2	Monday, 8.20 a. m.	Examinations for seniors begin.
June 5	Thursday, 8.20 a. m.	Second Semester examinations begin.
June 6	Friday, 4.10 p. m.	Examinations for seniors end.
June 7	Saturday	The School of Medicine. School of Law. The School of Dentistry. The School of Pharmacy. School for Nurses. College of Commerce and Business Administration. Extension Courses in Commerce. Commencement Day.
June 8	Sunday, 11.00 a. m.	Baccalaureate Sermon.
June 11	Wednesday, 4.10 p. m.	Second Semester examinations end.
June 12	Thursday	Class day.
June 13	Friday	Reunion Day. Final Student Assembly. President's Address.
June 14	Saturday, 11.00 a. m.	Commencement Day. Second Semester ends.

BOARD OF REGENTS

(Members appointed by the Governor for terms of nine years):

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413 East Baltimore Street, Baltimore	
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Kensington, Montgomery County	
B. JOHN BLACK.....	1918-1927
Randallstown, Baltimore County	
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Hagerstown, Washington County	

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JOHN M. DENNIS

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T. B. SYMONS, M.S., D.Agr., Director of the Extension Service.
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A. N. JOHNSON, S.B., Dean of the College of Engineering.
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HENRY D. HARLAN, LL.D., Dean of the School of Law.
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W. S. SMALL, Ph.D., Dean of the College of Education.
M. MARIE MOUNT, A.B., Acting Dean of the College of Home Economics.
C. O. APPLEMAN, Ph.D., Dean of the Graduate School.
R. H. LEAVITT, Lieutenant Colonel, U. S. A., Head of the Department of Military Science and Tactics.

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T. H. TALIAFERRO, C.E., Ph.D., Professor of Mathematics.
E. N. CORY, M.S., Professor of Entomology.
H. C. HOUSE, Ph.D., Professor of English Language and Literature.
A. G. MCCALL, Ph.D., Professor of Geology and Soils.
DEVÖE MEADE, Ph.D., Professor of Animal Husbandry.
N. E. GORDON, Ph.D., Professor of Physical Chemistry.
FREDERIC E. LEE, Ph.D., F.R.E.S., Professor of Sociology and Political Science.

OFFICERS OF INSTRUCTION

(The following list is arranged in groups according to title and time of appointment)

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THOS. S. SPENCE, A.M., Professor of Classical Languages and Literature, Dean Emeritus of the College of Arts and Sciences.
W. T. L. TALIAFERRO, A.B., D.Sc., Professor of Farm Management.
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*L. B. BROUGHTON, M.S., Professor of Industrial Chemistry, Chairman of the Premedical Committee.
E. N. CORY, M.S., Professor of Entomology, State Entomologist.
C. O. APPLEMAN, Ph.D., Professor of Plant Physiology and Bio-Chemistry, Dean of the Graduate School.
ROY H. WAITE, M.S., Professor of Poultry Husbandry.
H. C. BYRD, B.S., Assistant to the President and Director of Athletics.
C. E. TEMPLE, M.S., Professor of Plant Pathology.
J. E. METZGER, B.S., Professor of Agronomy.
O. C. BRUCE, M.S., Professor of Soils.
C. J. PIERSON, A.B., A.M., Professor of Zoology.
P. W. ZIMMERMAN, M.S., Professor of Plant Physiology and Ecology, Dean of the College of Agriculture.
A. G. MCCALL, Ph.D., Professor of Geology and Soils.
R. C. REED, Ph.B., D.V.M., Professor of Animal Pathology.
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J. A. GAMBLE, M.S., Professor of Dairy Husbandry.
E. M. PICKENS, D.V.M., A.M., Professor of Bacteriology and Animal Pathologist of the Biological and Live Stock Sanitary Laboratory.
DEVÖE MEADE, Ph.D., Professor of Animal Husbandry.
E. C. AUCHTER, Ph.D., Professor of Horticulture.
M. MARIE MOUNT, A.B., Professor of Home and Industrial Management, Acting Dean of the College of Home Economics.
EDNA B. MCNAUGHTON, B.S., Professor of Home Economics Education.
*M. M. PROFFITT, Ph.B., Professor of Psychology and Industrial Education.
N. E. GORDON, Ph.D., Professor of Physical Chemistry, State Chemist.
T. B. THOMPSON, Ph.D., Professor of Economics and Business Administration.

* On leave of absence during 1923-24.

S. S. STEINBERG, B.E., C.E., Professor of Civil Engineering.
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 H. W. STINSON, B.S., Associate Professor of Modern Languages.
 G. J. SCHULZ, A.B., Associate Professor of History and Political Science.
 C. F. KRAMER, A.M., Associate Professor of Modern Languages.
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 R. C. WILEY, M.S., Associate Professor of Chemistry.
 A. S. THURSTON, M.S., Associate Professor of Floriculture.
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 S. H. HARVEY, B.S., Assistant Professor of Dairy Husbandry.

J. S. DOUGHERTY, Captain, Infantry, D.O.L., Assistant Professor of Military Science and Tactics.
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 H. LINDEN, Captain, Infantry, D.O.L. (B.S. in Engineering), Assistant Professor of Military Science and Tactics.
 S. H. DEVAULT, A.M., Ph.D., Assistant Professor of Agricultural Economics.
 G. EPPLEY, B.S., Assistant Professor of Agronomy.
 LESLIE E. BOPST, B.S., Assistant Professor of Chemistry.
 TRESSA B. JOHNSON, M.A., Assistant Professor of English.
 MALCOLM R. HARING, Ph.D., Assistant Professor of Chemistry.
 W. A. GRIFFITH, M.D., Instructor in Hygiene, College Physician.
 M. A. PYLE, B.S., Instructor in Civil Engineering.
 MILTANNA R. McVEY, Instructor in Library Science, Librarian.
 M. D. BOWERS, A.B., Instructor in Journalism.
 L. J. POELMA, D.V.S., Instructor in Dairy Bacteriology.
 BENJAMIN BERMAN, B.S., Instructor in Civil Engineering.
 J. B. BLANDFORD, Instructor in Horticulture, Horticultural Superintendent.
 D. C. LICHTENWALNER, B.S., Instructor in Chemistry.
 E. F. NEW, B.P., LL.M., Lecturer on Geography of Commerce.
 W. E. WHITEHOUSE, B.S., Instructor in Pomology.
 PEARL ANDERSON, A.B., Instructor in Zoology.
 W. H. SIMMONS, Sergeant, D.E.M.L., U.S.A., Military Instructor.
 E. B. STARKEY, M.S., Instructor in Chemistry.
 ARLETA R. DYMOND, A.B., Instructor in Public Speaking.
 J. H. SCHAD, B.S., Instructor in Mathematics.
 F. J. DOAN, B.S., Assistant in Dairy Husbandry.
 D. C. HENNICK, Assistant in Mechanical Engineering.
 F. D. DAY, B.S., Assistant in Agricultural Education.
 L. H. VAN WORMER, M.S., Assistant Chemist.
 H. R. WALLS, Assistant Chemist and Inspector.
 E. C. DONALDSON, M.S., Assistant Chemist and Inspector.
 A. L. FLENNER, B.S., Assistant Chemist.
 B. L. GOODYEAR, B.S., B. Mus., Teacher of Voice and Piano.
 JESSIE BLAISDELL (Mrs.), Assistant in Music.
 E. E. ERICKSON, B.A., Assistant in English.

SPECIAL INSTRUCTORS IN REHABILITATION DEPARTMENT

E. F. NEW, B.P., LL.M., Director of Rehabilitation.
ALBERT F. VIERHELLER, B.S.A., Instructor in Horticulture.
F. H. LEUSCHNER, B.S., Instructor in Poultry.
GEORGE HARRISON, JR., Instructor in Agriculture.
EDNA B. NEW, Instructor in Vocational English.
FLORENCE KITE, Instructor in Farm Arithmetic.
L. W. INGHAM, Instructor in Dairy Husbandry.
R. W. CULLEN, Assistant in Farm Engineering.
G. E. HOUSE, Assistant in Horticultural Projects.
T. H. BARTILSON, Assistant in Poultry.
M. McMASTER, Assistant in Greenhouse Management.

FELLOWS AND LABORATORY ASSISTANTS

H. F. JENKINS	O. P. H. REINMUTH
J. E. FLYNN	J. D. SCHEUCH
J. N. FIELDS	E. G. VANDEN BOSCHE
K. B. CHAPPELL	H. G. LINDQUIST
J. W. ELDER	L. Z. FOUTZ
MILDRED GRAFFLIN	G. S. LANGFORD
R. E. MARKER	P. WALKER

AGRICULTURAL EXPERIMENT STATION STAFF

HARRY J. PATTERSON, D.Sc.....Director and Chemist
H. B. McDONNELL.....Chemist for the Animal Pathology Investigations.
J. B. S. NORTON, M.S.....Botany and Plant Pathology
THOS. H. WHITE, M.S.....Vegetable and Floriculture
CHAS. O. APPLEMAN, Ph.D.....Plant Physiology
ROY H. WAITE, B.S.....Poultry
E. N. CORY, M.S.....Entomology
A. G. MCCALL, Ph.D.....Soils
J. E. METZGER, B.S.....Agronomy
E. M. PICKENS, A.M., D.V.M.....Animal Pathology
E. C. AUCHTER, M.S., Ph.D.....Horticulture
ALBERT WHITE, B.S.....Superintendent Ridgely Farm
F. S. HOLMES, M.S.....Seed Inspection
DEVoe MEADE, Ph.D.....Animal Husbandry
J. A. GAMBLE, M.S.....Dairy Husbandry
F. W. GEISE, M.S.....Vegetable Breeding

INSTRUCTORS IN REHABILITATION DEPARTMENT

E. F. NEW, B.P., LL.M., Director of Rehabilitation.
ALBERT F. VIERHELLER, B.S.A., Instructor in Horticulture.
F. H. LEUSCHNER, B.S., Instructor in Poultry.
GEORGE HARRISON, JR., Instructor in Agriculture.
EDNA B. NEW, Instructor in Vocational English.

E. S. JOHNSTON, Ph.D.....Associate, Plant Physiology
J. A. JEHLE, Ph.D.....Associate, Plant Pathology
JOS. M. SNYDER, M.S.....Associate, Soils
W. B. KEMP, M.S.....Associate, Agronomy
C. C. HAMILTON, M.S.....Associate, Entomology
R. L. SELLMAN, B.S.....Assistant, Agronomy
H. B. WINANT, B.S.....Assistant, Soils
W. N. EZEKIEL, M.S.....Assistant, Plant Pathology
ANNA M. HOOK.....Assistant, Seed Inspection
ISABEL VEITCH.....Assistant, Seed Inspection
CAROLINE VEITCH.....Assistant, Seed Inspection
MARION JOHNSON.....Assistant, Seed Inspection
L. J. POELMA, D.V.S.....Assistant, Animal Pathologist
A. L. SHRADER, M.S.....Assistant, Pomology
C. M. CONRAD, B.S.....Assistant, Plant Physiology
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S. F. POTTS, B.S.....Assistant, Entomology
W. D. KIMBROUGH, B.S.....Assistant, Plant Physiology
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H. BIERMAN, M.S.....Assistant, Dairy Husbandry
O. W. ANDERSON, B.S.....Assistant, Dairy Husbandry

EXTENSION SERVICE STAFF

*THOMAS B. SYMONS, M.S., D.Agr....Director
*F. B. BOMBERGER, B.S., A.M., D.Sc...Assistant Director and Specialist in Rural Organization and Marketing
*E. G. JENKINS.....State Boys' Club Agent
*P. W. CHICHESTER, B.S.....Assistant Boys' Club Agent
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*MRS. MARION C. BELL.....District Agent and Specialist
*MISS BERTHA KNIGHT, B.S.....District Agent and Specialist
†E. C. AUCHTER, M.S., Ph.D.....Specialist in Horticulture
W. R. BALLARD, B.S.....Specialist in Vegetable and Landscape Gardening
M. D. BOWERS, B.S.....Specialist in Agricultural Journalism
B. E. CARMICHAEL, B.S.....Specialist in Animal Husbandry
†R. W. CARPENTER, A.B.....Specialist in Agricultural Engineering
J. A. CONOVER, B.Sc.....Specialist in Dairying
†E. N. CORY, M.S.....Specialist in Entomology
†S. H. DEVAULT, A.M., Ph.D.....Specialist in Marketing
†J. A. GAMBLE, M.S.....Specialist in Dairying

*In cooperation with the U. S. Department of Agriculture.
†Duration next time to Extension Work

E. S. JOHNSTON, Ph.D.....Associate, Plant Physiology
J. A. JEHLE, Ph.D.....Associate, Plant Pathology
JOS. M. SNYDER, M.S.....Associate, Soils
W. B. KEMP, M.S.....Associate, Agronomy
C. C. HAMILTON, M.S.....Associate, Entomology
R. L. SELLMAN, B.S.....Assistant, Agronomy
H. B. WINANT, B.S.....Assistant, Soils
W. N. EZEKIEL, M.S.....Assistant, Plant Pathology

R. A. JEHLE, B.S.A., Ph.D.....Specialist in Pathology
 †DEVOE MEADE, Ph.D.....Specialist in Animal Husbandry
 F. W. OLDENBURG, B.S.....Specialist in Agronomy
 W. H. RICE, B.S.....Specialist in Poultry
 †C. S. RICHARDSON, A.M.....Specialist in Educational Extension
 S. B. SHAW, B.S.....Specialist in Horticulture
 †W. T. L. TALIAFERRO, A.B., Sc.D.....Specialist in Farm Management
 †C. E. TEMPLE, M.S.....Specialist in Pathology

COUNTY AGENTS

County	Name	Headquarters
Allegany.....	*R. F. MCHENRY, B.S.....	Cumberland
Anne Arundel.....	*G. W. NORRIS, B.S.....	Annapolis
Baltimore.....	*W. C. ROHDE, B.S.....	Towson
Calvert.....	*J. H. DRURY.....	Chaney
Caroline.....	*W. C. THOMAS, B.S.....	Denton
Carroll.....	*F. W. FULLER, B.S.....	Westminster
Cecil.....	*A. D. RADEBAUGH.....	Elkton
Charles.....	*J. P. BURDETTE, A.B.....	La Plata
Dorchester.....	*E. W. MONTELL, B.S.....	Cambridge
Frederick.....	*JOHN MC. GILL, JR.....	Frederick
Garrett.....	*W. C. JESTER, M.S.....	Oakland
Harford.....	*B. B. DERRICK, B.S.....	Bel Air
Howard.....	*M. H. FAIRBANK.....	Ellicott City
Kent.....	*H. B. DERRICK, B.S.....	Chestertown
Montgomery.....	*W. C. SNARR, B.S.....	Rockville
Prince George's.....	*W. B. POSEY, B.S.....	Upper Marlboro
Queen Anne's.....	*O. C. JONES, B.S.....	Centerville
St. Mary's.....	*G. F. WATHEN.....	Loveville
Somerset.....	*C. Z. KELLER, B.S.....	Princess Anne
Talbot.....	*E. P. WALLS, B.S., M.S.....	Easton
Wicomico.....	*G. R. COBB, B.S.....	Salisbury
Washington.....	*M. D. MOORE, M.S.....	Hagerstown
Worcester.....	*E. I. OSWALD, B.S.....	Snow Hill

ASSISTANT COUNTY AGENT

Harford.....*G. R. STUNTZ, B.S.....Bel Air

LOCAL AGENTS

Southern Maryland.*J. F. ARMSTRONG (Col.).....Seat Pleasant
 Eastern Shore.....*L. H. MARTIN (Col.).....Princess Anne

*In cooperation with the U. S. Department of Agriculture.
 †Devoting part time to Extension Work.

HOME DEMONSTRATION AGENTS

County.	Name	Headquarters
Allegany.....	*BESSIE M. VOLK.....	Cumberland
Anne Arundel.....	*MRS. G. LINTHICUM.....	Annapolis
Caroline.....	*EMILY C. KELLOGG B.S.....	Denton
Carroll.....	*RACHEL EVERETT.....	Westminster
Cecil.....	*ELIZABETH V. HODGSON.....	Elkton
Charles.....	*MRS. E. S. BOHANNAN.....	La Plata
Frederick.....	*ELIZABETH R. THOMPSON, B.S.....	Frederick
Harford.....	*ANNIE M. HOLBROOK.....	Bel Air
Kent.....	*SUSAN V. HILL.....	Chestertown
Montgomery.....	*BLANCHE A. CORWIN, B.S.....	Rockville
Prince Georges.....	*ELLEN L. DAVIS.....	Hyattsville
St. Mary's.....	*ETHEL JOY.....	Leonardtwn
Talbot.....	*MRS. OLIVE K. WALLS.....	Easton
Washington.....	*SUSAN S. BARBERSON.....	Hagerstown
Wicomico.....	*FLORENCE H. MASON, B.S.....	Salisbury
Worcester.....	*LUCY J. WALTER.....	Snow Hill

LOCAL AGENT

Charles & St. Mary's*LEAH D. WOODSON (Col.).....La Plata

GARDEN SPECIALIST

Madison & Lafayette
 Aves., Administra-
 tion Building.....ADELAIDE DERRINGER (Mrs.).....Baltimore

*In cooperation with the U. S. Department of Agriculture.

FACULTY COMMITTEES FOR 1923-1924

College Park

ALUMNI

Messrs. Broughton, Hoshall, Stinson, Hillegeist, Cory, Bomberger, Richardson and Spence.

BUILDINGS

Messrs. Crisp, Johnson, Creese, Pierson, Carpenter and Mackert.

CATALOGUE, STUDENT ENROLLMENT AND ENTRANCE

Messrs. Zimmerman, T. H. Taliaferro, Lee, Creese, Broughton, Hillegeist, Appleman, Small and Miss Mount.

COMMENCEMENT

Messrs. T. H. Taliaferro, Richardson, Cory, House, Leavitt, Broughton and Thurston.

COURSES OF STUDY

Messrs. Cotterman, Lee, Zimmerman, Appleman, Johnson, Small, Leavitt, T. H. Taliaferro, Gordon, and Misses Mount and Preinkert.

EDUCATIONAL STANDARDS

Messrs. Appleman, McCall, Gordon, Johnson, Small, Lee and Hillegeist.

FARMERS' DAY

Messrs. Patterson, Symons, Zimmerman and Miss Mount.

GROUNDS AND ROADS

Messrs. Auchter, Thurston, Crisp, Patterson, Steinberg, Metzger and Carpenter.

PRE-MEDICAL EDUCATION

Messrs. Cory, Broughton, Davis, Lee, Spence, Wiley and McGlone.

SANITATION

Messrs. Pickens, Griffith, McDonnell, Reed, W. T. L. Taliaferro, Cory, Pyle and Miss Mount.

STUDENT AFFAIRS

Messrs. Byrd, Small, Broughton, Cory, Johnson, Spence and Miss Stamp.

STUDENT BUSINESS AND AUDITING

Miss McKenney, and Messrs. Spann, Hoshall, Mackert, Shadick, Bowers and President of Students' Assembly.

GENERAL INFORMATION

The University of Maryland

Location

The University of Maryland is located at College Park in Prince George's County, Maryland, on the line of the Washington branch of the Baltimore and Ohio Railroad, eight miles from Washington and thirty-two miles from Baltimore. At least eight trains a day from each city stop at College Station, thus making the place easily accessible from all parts of the State. Telephone connection is made with the Chesapeake and Potomac lines.

The grounds front on the Baltimore and Washington Boulevard. The suburban town of Hyattsville is two miles to the south, and Laurel, the largest town in the county, is ten miles to the north on the same road. Access to these towns and to Washington may be had by steam and electric railway. The site of the University is particularly beautiful. The broad rolling campus and most of the buildings occupy a commanding hill, which is covered with forest trees and overlooks the surrounding country. In front, on either side of the boulevard, lie the drill ground and the athletic field. The buildings of the Agricultural Experiment Station face the boulevard. The farm of the College of Agriculture contains about 300 acres, and is devoted to fields, gardens, orchards, vineyards, poultry yards, etc., which are used for experimental purposes and demonstration work in agriculture and horticulture.

The general appearance of the grounds is exceedingly attractive. They are tastefully laid off in lawns and terraces ornamented with shrubbery and flower beds.

The location of the University is healthful; the sanitary conditions are excellent. No better proof of this can be given than that there has been practically no serious cases of illness among the students for many years.

The Schools of Medicine, Pharmacy, Dentistry, Law, and College of Commerce and Administration of the University are located in Baltimore at the corner of Lombard and Greene Streets.

History

The history of the present University of Maryland practically combines the histories of two institutions. It begins with the chartering of the College of Medicine of Maryland in Baltimore in 1807, which graduated its first class in 1810. In 1812 the institution was empowered to annex other departments and was by the same act "constituted an University by the name and under the title of the University of Maryland." As such, its Law and Medical schools have since been especially prominent in the South and widely known throughout the country. The Medical School building in Baltimore, located at Lombard and Green Streets, erected in 1814-1815, is the oldest structure in America devoted to medical teaching.

For more than a century the University of Maryland stood almost as organized in 1812, until an act of the Legislature in 1920 merged it with the Maryland State College, and changed the name of the Maryland State College to the University of Maryland. All the property formerly held by the old University of Maryland was turned over to the Board of Trustees of the Maryland State College, the name of which was changed to Board of Regents of the University of Maryland.

The Maryland State College first was chartered in 1856 under the name of the Maryland Agricultural College, the second agricultural college in the Western Hemisphere. For three years the College was under private management. In 1862 the Congress of the United States, recognizing the practical value and increasing need of such colleges, passed the Land Grant Act. This act granted each State and Territory that should claim its benefits a proportionate amount of unclaimed Western lands, in place of scrip, the proceeds from the sale of which should apply under certain conditions to the "endowment, support and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such a manner as the Legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." This grant was accepted by the General Assembly of Maryland. The Maryland Agricultural College was named as the beneficiary of the grant. Thus the College became, at least in part, a State institution. In the fall of 1914 its control was taken over entirely by the State. In 1916 the General Assembly granted a new charter to the College and made it the Maryland State College.

The University is coeducational and under the charter every power is granted necessary to carry on an institution of higher learning and research, comparable to the great state universities of the West, in which Agriculture and Engineering hold a dominant place along with the Liberal Arts and the Professions. This is in full accord with the Morrill Act of the National Congress and the subsequent acts. This institution, therefore, is the representative of the State and the Nation in higher education and research. The charter provides that it shall receive and administer all existing grants from the national government and all future grants which may come to the State for this purpose.

BUILDINGS

Some eighteen buildings have been erected on the University campus for research, extension, and residence educational purposes. The buildings comprised in the groups are the Agricultural Building, Calvert Hall, Silvester Hall, the Library, Engineering Buildings, Chemical Building,

Morrill Hall, Horticultural Building, the Hospital, Stock Judging Pavilion, Poultry Building, temporary dining-hall, temporary dormitory, Gerneaux Hall, Practice House, and the Agricultural Experiment Station group. Other buildings are located in Baltimore.

Agricultural Building

The Executive Offices, the College of Agriculture, College of Education, College of Home Economics, and the Agricultural and Home Economics Extension Service are housed in the Agricultural Building. This structure was completed and occupied in April, 1918. The building also contains biological, soils and bacteriological laboratories.

Buildings in Baltimore

The buildings of the University in Baltimore are located at the corner of Lombard and Greene streets. They consist of the original building erected in 1814, and more modern buildings adjoining, of which one is devoted to Law and one the University Hospital.

Calvert Hall

Excellent dormitory accommodations for men are provided in Calvert Hall, a modern fireproof structure erected and occupied in 1914. It took in part the place of the two dormitories destroyed by fire in 1912.

Silvester Hall

This large, modern, four-story building was completed in 1921. It is used as a men's dormitory and has been dedicated as Silvester Hall, in honor of Dr. R. W. Silvester, who served as president of the institution for 20 years.

Morrill Hall

The College of Arts and Sciences is partially housed in Morrill Hall, which is a three-story building erected in 1898. This building formerly was used for the work in agriculture and engineering.

Chemical Building

The Chemical Building provides a place for instruction in Chemistry and for the state work in analysis of feeds, fertilizers and agricultural lime. It has classrooms, laboratories, and offices for all undergraduate work in chemistry.

Engineering Buildings

The Mechanical Building was the first of the Engineering group constructed, having been completed and occupied by the Department of Mechanical Engineering in 1898. The Civil Engineering and Electrical Engineering additions, with accompanying shops, were built in 1910. The three buildings are connected by closed passageways.

New Construction

The General Assembly of the Legislature appropriated certain funds to be expended on new construction at the University. Three structures are now under way, and, unless something unforeseen occurs to prevent, they will be ready for service before opening of the University in September. These are as follows:

1. **Dairy Building.**—This building will be thoroughly modern in every detail. It will be used in the development of dairying in its commercial as well as scientific aspects.

2. **Gymnasium.**—This building provides quarters for the Military Department, as well as adequate facilities to carry on the physical development of the student.

3. **Stadium.**—This structure provides adequate accommodation for spectators at the outdoor contests, dressing rooms for contestants and rest rooms for patrons.

The Infirmary

The infirmary was erected in 1901 and makes possible excellent treatment for students in cases of sickness. It has a private ward for segregation of contagious diseases, quarters for the trained nurse, operating room, doctor's office, special culinary equipment, and accommodations for twenty patients.

The Horticultural Building

Classrooms, propagation rooms, and offices are in the Horticultural Building, completed in 1915. Ten modern greenhouses are constructed as a part of this building.

The Stock Judging Pavilion

This building is used for stock judging competitions, for stock shows, and to house a part of the equipment of the dairy husbandry and farm machinery departments of the College of Agriculture. Connecting this building with the Agricultural Building is an auditorium in which 600 persons may be seated.

The Poultry Buildings

Research in poultry projects and laboratory practice is carried on in the Poultry Building. The main building contains classrooms, laboratories, offices and incubating rooms.

Experiment Station Group

The main building of the experiment station group is a large brick structure of the colonial period. It contains the office of the Director of the Station, the chemical and physiological laboratories, and a laboratory for research in soils. Other buildings of this group contain seed and milk testing laboratories and classrooms. There are also greenhouses, an Agronomy Building, a secondary horticultural building, barns, farm machinery buildings, silos, etc.

Temporary Dining-Hall

A temporary wooden structure has been erected to serve as a dining-hall until the Legislature appropriates money to put up a permanent building. This wooden structure is well built and contains kitchen equipment and other facilities for comfortably taking care of about 500 persons.

Other Buildings

Another wooden structure used for several years as an auditorium is serving as a dormitory. The University also maintains a laundry building in which it handles the students' laundry at cost. It also has two frame dwelling-houses in which it houses part of its labor. A brick powerhouse contains apparatus for pumping all water for University use. Another small frame house contains machinery for canning and drying fruits and vegetables.

The Filtration Plant

Recently completed is a modern filtration plant for furnishing an ample supply of water for use in the dormitories and general university buildings. This plant consists of a reservoir with a reserve supply of 1,500,000 gallons, sediment tanks, filter beds, pumps, etc.

Gerneaux Hall

This building is a dormitory for girls, and is fitted with several conveniences for their use.

Practice House

This house is newly built and equipped with all appliances of a modern home. It also serves as a dormitory for girls.

Library Building

The Library is housed in a separate two-story building on the first floor of which is collected material relating to agriculture. The special catalogue cards issued by the United States Department of Agriculture make accessible the large number of state and national bulletins on agricultural and related scientific subjects. The second floor is used for general reading and reference work.

Through the Inter-Library Loan systems of the Library of Congress and the United States Department of Agriculture the University Library is able to supplement its reference material either by arranging for personal work in these Washington libraries or by actually borrowing the books from them.

The Library contains 12,650 bound books and 5,000 United States Government documents and unbound reports and pamphlets. All material is on open shelves where students can easily locate it. The Library is open from 8.30 A. M. to 5.30 P. M., Monday to Friday, inclusive; Saturday from 8.30 A. M. to 12.30 P. M.; Sunday afternoon from 2.30 P. M. to 5.30 P. M.; and all evenings except Saturday, from 6 P. M. to 10 P. M.

SCHOLARSHIPS AND FELLOWSHIPS

High School Scholarships

While the University has neither endowment nor loan funds with which to assist students, it has established for each high and preparatory school in Maryland and the District of Columbia one scholarship each year. For the three counties of Maryland which do not have high schools, Calvert, Charles and St. Mary's, one scholarship each year is given. These scholarships have a value of fifty dollars and are credited to the holder's account.

These scholarships are offered under the following conditions:

1. The holder must be a graduate of a high or preparatory school and qualified to enter the freshman class.
2. The appointment to the scholarships must be made by the county school superintendent upon recommendation of the principal of the high school. In making recommendations high school principals should take into consideration not only class standing but also inability to meet the expenses of a university education.
3. The appointment shall be made for the term normally required to complete the curriculum selected.
4. The scholarship will be forfeited by indifference to scholastic work or by disregard of rules of the University.
5. Scholarships awarded to preparatory schools and to high schools of Baltimore and Washington shall be given on recommendation of the principals direct to the University. Recipients of these scholarships must be qualified to enter the freshman class.
6. Appointees from Charles, St. Mary's and Calvert counties may take one of the non-collegiate curriculums or they may, if qualified, take one of four-year curriculums leading to a degree.

Fellowships

The University also offers a number of fellowships. These may be given either to its own graduates or the graduates of other colleges who desire to pursue courses in the Graduate School leading to advance degrees. Fellowships are available in the College of Agriculture, College of Engineering and College of Arts and Sciences. These fellowships are worth from \$500 to \$720 per year.

HONORS AND AWARDS

Honorable mention is given to students for excellence in undergraduate work in the upper one-fifth of each college as follows: The upper one-tenth is given first honors, and the rest second honors, provided that the student's course average is at least B.

Debating and Oratory

An annual debate is held each year in January between the Poe and New Mercer Literary societies for the "President's Cup," given by Dr. H. J. Patterson.

A gold medal is awarded by the Alumni Association each year to the best debater in the University, the test being a debate between picked teams from the two literary societies.

The Oratorical Association of Maryland Colleges, consisting of Washington College, Western Maryland College, St. John's College, and University of Maryland, offers each year gold medals for first and second places in an oratorical contest that is held between representatives of the four institutions.

Athletics

The class of 1908 offers annually to "the man who typifies the best in college athletics" a gold medal. The medal is given in honor of former President R. W. Silvester and is known as "The Silvester Medal for Excellence in Athletics."

The Military Medal

The class of 1899 offers each year a gold medal to the member of the battalion who proves himself the best drilled soldier.

The Company Sword

The class of 1897 awards annually to the captain of the best drilled company of the University battalion a silver mounted sword.

The Citizenship Prize

A gold medal is presented annually by H. C. Byrd, a graduate of the class of 1908, to the number of the senior class who during his collegiate career has nearest typified the model citizen and who has done most for the general advancement of the interests of the University.

The Goddard Medal

The James Douglas Goddard Memorial Medal is awarded annually to the man from Prince George's County making the highest average in his studies and who at the same time embodies the most manly attributes. The medal is given by Mrs. Annie K. Goddard James of Washington, D. C.

Sigma Phi Sigma Medal

The Delta Chapter of Sigma Phi Sigma Fraternity offers annually a gold medal to that freshman who makes the highest scholastic average during the first semester.

Alpha Zeta Medal

The Honorary Agricultural Fraternity of Alpha Zeta awards annually a medal to the agricultural student in the freshman class who attains the highest average record in academic work. The mere presentation of the medal does not elect the student to the fraternity, but simply indicates recognition of high scholarship.

ORGANIZATIONS

The Alumni Association

The Alumni Association is an organization composed of alumni of the University. This Association has an office at the University and has several branch associations. It publishes a monthly paper, The State University Alumnus. The Association is active in legislative and other measures for the support of the University.

The Student Assembly

The Student Assembly is composed of all the students and is organized to carry out a system of student self-government. The Student Executive Council is the executive committee of the Student Assembly and acts in co-operation with the faculty in the management of student affairs.

The Dramatic Club

The Dramatic Club is organized for the purpose of presenting at least one play each year. It is made up of students who have had experience in this work since coming to the University or in high school.

Fraternities and Sororities

There are at the University four national fraternities, Kappa Alpha, Sigma Nu, Sigma Phi Sigma, Phi Alpha; three local fraternities, Nu Sigma Omicron, Delta Psi Omega, Sigma Tau Alpha; two local sororities, Sigma Delta, Lambda Tau.

Societies

Two literary societies are maintained by the students, the Poe and New Mercer. These hold weekly meetings at which regular programs are presented.

The Maryland Chemical Club is made up of students specializing in chemistry. Special lectures by students and specialists in certain branches of chemistry and open discussions of various chemical questions are featured.

The Engineering Society is composed of students in the College of Engineering.

The Agricultural Club is organized according to special interests into the Horticultural Society, the Agronomy Society, and the Animal Husbandry Society.

Programs are offered in the Engineering Society and Agricultural Club similar to that of the Chemical Club, except that the subjects pertain to engineering or agriculture.

Student Grange

The University is fortunate in having a chapter of the time-honored national fraternity known as "The Grange." With the exception of two faculty advisers, the Student Grange membership is made up entirely from the student body. New members are elected by ballot when they have proven their fitness for the organization.

The general purposes of the Student Grange are to furnish a means through which students keep in touch with state and national problems of agricultural, economic or general educational nature; to gain experience in putting into practice our parliamentary rules; to learn the meaning of leadership and to learn how to assume leadership that aids in the ultimate task of serving in one's community.

Economics Club

This club is composed of students preparing for business careers in the Department of Economics and Business Administration of the College of Arts and Sciences.

Phi Kappa Phi

Phi Kappa Phi is a national honorary association open to honor students in all branches of learning.

Two classes of students may become eligible for election to membership in Phi Kappa Phi. First, any senior who ranks in scholarship among the upper one-fourth of the graduating class; second, any graduate student who would have been eligible as an undergraduate and who has made an honorable record in graduate work.

The prime object of the fraternity is to emphasize the attainment of scholarship and character and to stimulate mental achievement through the prize of membership.

Alpha Zeta

Alpha Zeta is a National Honorary Agricultural Fraternity open to students who have been in the institution at least three terms and who are in the upper two-fifths of the class so far as scholastic standing is concerned. From this number students are elected to the fraternity who show signs of scholarship and leadership, and have won the respect of the faculty and student body. The object, therefore, of the fraternity is to foster scholarship, leadership and good fellowship.

Le Cercle Francais

This club was organized in 1919 by the Department of French. Its membership is composed of the faculty of the department, students pursuing courses in French, and others interested in the study of that language. The aims of the club are to awaken a live interest in French literature, culture, history and customs, and to acquire facility in the use of the language. Although fostered by the College of Arts and Sciences, this club is not restricted to students enrolled therein, but is open to all who are interested.

Clubs

The Rifle Club is affiliated with the National Rifle Association and engages in matches with other colleges and rifle organizations.

The Chess and Checker Club is organized for the promotion of these games among those that engage in them. Annual tournaments are conducted for which gold medals are awarded.

The County Clubs are organizations of students from the same counties. The Baltimore City Club and District of Columbia Club are organizations of the same nature.

The Rossbourg Club is the student organization which has charge of most of the formal dances of the students. This club is open to all students.

The Keystone Club came into being when a score of men from the "Keystone State" found each other on the campus. All Pennsylvanians are eligible. Its aim is to promote a feeling of interest and good fellowship among the students from Pennsylvania.

The Christian Associations

The Young Men's and Young Women's Christian Associations are organized to be of general service to the students. They perform important functions in matters of obtaining employment for worthy students, in receiving new students, and in helping to maintain generally a high morale and a state of good fellowship in the student body.

The Diamondback

A weekly five-column newspaper, The Diamondback, is published by the students. This publication reflects the news and atmosphere of general college life.

ADMINISTRATION

The government of the University is vested by law primarily in a Board of Regents, consisting of nine members, each of whom is appointed by the Governor for a term of nine years. The administration of the University is vested in the President. The University Senate and the Administrative Council act in an advisory capacity to the President. The composition of these bodies is given elsewhere. The faculty of each college or school constitutes a group which passes on all questions that have exclusive relationship to the unit represented.

For purposes of administration and coordination of similar groups of studies, the following educational organizations are in effect:

- College of Agriculture.
- College of Arts and Sciences.
- College of Commerce and Business Administration.
- College of Education.
- College of Engineering.
- College of Home Economics.
- Department of Military Science and Tactics.
- Department of Physical Education and Recreation.
- Graduate School.
- School of Dentistry.
- School of Law.
- School of Medicine.
- School of Pharmacy.
- Summer School.

The College of Agriculture offers curricula in: (1) General Agriculture; (2) Agronomy; (3) Farm Management; (4) Geology and Soils; (5) Pomology; (6) Vegetable Gardening; (7) Floriculture; (8) Landscape Gardening; (9) Economic Entomology; (10) Animal Husbandry; (11) Dairy Husbandry; (12) Two-Year Agriculture.

The College of Arts and Sciences offers courses of study with majors in: (1) Biological Sciences; (2) Classical Languages and Literature; (3) English, including Journalism and Public Speaking; (4) History and the Social Sciences; (5) Mathematics; (6) Modern Languages and Literature (French, German and Spanish); (7) Philosophy and Psychology; (8) Physical Sciences, including Chemistry, Physics and Geology. Courses are also offered in Music and Library Science. Special curricula are offered in the Pre-Medical Group, and in Industrial, General and Agricultural Chemistry.

The College of Education offers curricula in: (1) Agricultural Education; (2) Home Economics Education; (3) Industrial Education; (4) General Education.

The College of Engineering offers curricula in: (1) Civil Engineering; (2) Electrical Engineering; (3) Mechanical Engineering.

The College of Home Economics offers a curriculum in which may be obtained the general principles of home economics, a knowledge of home economics for teaching purposes, or a specialized knowledge of particular phases which deal with the work of the dietitian or institutional manager.

The Department of Military Science and Tactics has charge of the work of the Reserve Officers' Training Corps unit established by the War Department. During the first two years of the male student's stay at the University he is required to take the Basic R.O.T.C. courses. In case of physical disability a course covering an equivalent number of credit hours must be taken. During his junior and senior years he may, if eligible, elect each year six credit hours in the Reserve Officers' Training Corps.

The Department of Physical Education and Recreation works in close cooperation with the military department and supervises all physical training, general recreation and intercollegiate athletics.

The Graduate School offers courses in any of the subjects given in the colleges of the University in which a graduate may desire to obtain an advanced degree. The Graduate School consists of all students taking graduate work in the various departments. Those qualified to supervise graduate work in the various departments constitute the faculty of the Graduate School, presided over by a research specialist designated as Dean.

Information in regard to offerings of the School of Medicine, the Schools of Pharmacy and Dentistry and the School of Law and the College of Commerce and Business Administration will be found elsewhere.

The Summer School of six weeks offers courses in subjects given during the regular session of the University, with the exception of Medicine, Dentistry, Pharmacy and Law, and in special subjects, such as school administration, classroom management and principles of secondary education for high school and elementary school teachers. Certain courses given in the Summer School are of collegiate grade and may be counted toward the bachelor's degree. Advanced courses may count toward the master's degree.

EXTENSION AND RESEARCH

Agriculture and Home Economics

The agricultural and home economics extension service of the University, in co-operation with the United States Department of Agriculture, carries to the people of the State through practical demonstrations conducted by specialists of the College of Agriculture and county agents, the results of investigations in the fields of agriculture and home economics. The organization consists of the administrative forces, including the director, assistant director, specialists and clerical force, the county agricultural demonstration agents, and the home demonstration agents in each county and in the chief cities of the State. The county agents and the specialists jointly carry on practical demonstrations under the several projects in the production of crops or in home-making, with the view of putting into practice on the farms of the State improved methods of agriculture and home economics that have stood the test of investigation, experimentation and experience. Movable schools are held in the several counties. At such schools the specialists discuss phases of agriculture and home economics in which the people of the respective counties are particularly interested.

The work of the Boys' Agricultural Clubs is of especial importance from an educational point of view. The specialists in charge of these projects, in co-operation with the county agricultural agent and the county school officers and teachers, organize the boys of the several communities of the county into agricultural clubs for the purpose of teaching them by actual practice the principles underlying agriculture. The boys hold regular meetings for the discussion of problems connected with their several projects and for the comparison of experiences. Prizes are offered to stimulate interest in the work.

The home economics specialists and agents organize the girls into clubs for the purpose of instructing them in the principles underlying canning, drying and preserving fruits and vegetables, cooking, dressmaking and other forms of home economics work.

The educational value of the demonstrations, farmers' meetings, movable schools, clubs and community shows is incalculable. They serve to carry the institution to the farmer and to the home-maker.

General Extension

This phase of the extension service of the University is conducted in co-operation with the United States Bureau of Education, and is intended to make the general branches of the educational curriculum of greater service to the people of the State.

Agricultural Experiment Station

Intimately associated with the extension service is the experimental work in agriculture.

In 1847 an act was passed making provision for a State laboratory in which the application of chemistry to agriculture was to be undertaken. In 1858 experimentation was undertaken on the College farm. After two or three years this work was interrupted by the general financial distress of the time and by the Civil War. In 1888 under the provisions of the Hatch Act of the preceding year, the Agricultural Experiment Station was established.

This act states the object and purpose of the experiment stations as follows:

That it shall be the object and duty of said Experiment Stations to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective States or Territories.

Prior to the establishment of the experiment stations there was practically no agricultural science in this country. The work done by these institutions during the past quarter of a century has given a science of agriculture to teach, and laid a broad foundation for development.

The placing of agricultural demonstrations and extension work on a national basis has been the direct outgrowth of the work of the experiment station.

The students of the University, taking courses in the College of Agriculture, are kept in close touch with the investigations in progress.

The Eastern Branch

The Eastern Branch of the University of Maryland is located at Princess Anne, Somerset County. It is maintained for the education of negroes in agriculture and the mechanic arts.

INCOME

The University is supported entirely by funds appropriated for its use by the State and Federal Governments. The appropriations from the Federal Government are derived from the original Land Grant Act, from the second Morrill Act, the Nelson Act, the Smith-Hughes and Smith-Lever Acts and the Hatch and Adams Acts. The University, with the exception of its professional schools in Baltimore, charges no tuition and consequently has no funds from that source.

ADMISSION

General Statement

An applicant for admission to any of the colleges or schools of the University must be at least sixteen years of age.

Women are admitted to all of the departments under the same conditions and on the same terms as men.

Students may be admitted at the beginning of either semester but should enter, if possible, at the beginning of the first semester (in 1923, September 17). Students can seldom enter the University to advantage except at the opening of the school year.

In general the requirements for admission to the freshman class are the same as those prescribed for graduation by the approved high schools of Maryland. A candidate for admission by *certificate* must be a *graduate* of an approved high school or other accredited school. Applicants who have not been graduated from accredited schools must pass entrance examinations designated by the University Entrance Board.

Number of Units Required

At least fifteen units of high school or other secondary school work in acceptable subjects must be offered by every candidate.

A unit represents a year's study in any subject in a secondary school and constitutes approximately a quarter of a full year's work. It presupposes a school year of 36 to 40 weeks, recitation periods of from 40 to 60 minutes, and for each study four or five class exercises a week. Two laboratory periods in any science or vocational study are considered as equivalent to one class exercise.

Required and Elective Subjects

*Prescribed Units

English	3
†Mathematics	2
Science	1
History	1
Total	7

*In addition to the prescribed units listed, two years of any one foreign language are required for admission to the pre-medical curriculum.

†An additional unit of mathematics is required for admission to the College of Engineering. The additional unit should include Algebra, $\frac{1}{2}$, and Solid Geometry, $\frac{1}{2}$.

Elective Subjects

To be selected from the following subjects: .

Agriculture	Geology
Astronomy	History
Biology	Home Economics
Botany	Industrial Subjects
Chemistry	Language
Civics	Mathematics
Commercial Subjects	Physical Geography
Drawing	Physics
Economics	Physiology
English	Zoology
General Science	

Methods of Admission

The credits required for admission to the undergraduate departments may be secured as follows:

- (a) By certificate
- (b) By examination
- (c) By transfer from another university or college of recognized standing

(a) Admission by Certificate

Blank certificates for students wishing to enter the University by certificate from an approved high school or other secondary school may be had of the Registrar. They should be obtained early and filled out and sent to the Registrar for approval as soon as possible after the close of the high school in June.

The State Board of Education prepares a list of approved high schools each year. The University accepts graduates from these schools without question. Other preparatory schools may be visited by the high school inspector upon request.

Entrance credit will also be accepted on certificate from the following sources:

- (1) From school accredited by the Association of Colleges and Preparatory Schools of the Southern States.
- (2) From schools accredited by the North Central Association of Colleges and Secondary Schools.
- (3) From schools accredited to the state universities which are included in the membership of the North Central Association of Colleges and Secondary Schools.
- (4) From schools approved by the New England College Entrance Certificate Board.
- (5) From high schools and academies registered by the Regents of the University of the State of New York.

- (6) From College Entrance Examination Board of New York.
- (7) From high and preparatory schools on the accredited list of other state boards of education where the requirements for graduation are equivalent to the standard set by the Maryland State Board of Education.
- (8) From the state normal schools of Maryland and other state normal schools having equal requirements for graduation.

(b) Admission by Examination

1. The University Entrance Examinations.

The University entrance examinations are given at the University in College Park immediately before the opening of the first semester in September. *Students who need to take the examinations should make all necessary preparations several weeks in advance.* These examinations cover all the subjects required or accepted for entrance outlined.

An examination fee of \$5.00 is charged for entrance examinations.

II. The Examinations of the College Entrance Examination Board.

The certificate of the College Entrance Examination Board, showing a grade of 60 per cent. or higher will be accepted for admission in any elective subject. These examinations will be held only once a year beginning the third Monday in June.

All applications for examination must be addressed to the Secretary of the College Entrance Examination Board, 431 West 117th Street, New York, N. Y., and must be made upon a blank form to be obtained from the Secretary of the board on application.

Applications for examinations at points in the United States east of the Mississippi River and at points on the Mississippi River must be received by the Secretary of the Board at least three weeks in advance of the examinations; applications for examinations at points in the United States west of the Mississippi River must be received at least four weeks in advance of the examinations; and applications for examinations outside of the United States must be received at least six weeks in advance of the examinations.

Applications received later than the time specified will be accepted when it is possible to arrange for the admission of the candidate concerned, but only on payment of \$6.00 in addition to the usual fee.

The examination fee is \$6.00 for all candidates examined at points in the United States, and \$20.00 for all candidates examined outside of the United States. The fee, which cannot be accepted in advance of the application, should be remitted by postal order, express order or draft on New York to the order of the College Entrance Examination Board.

III. The New York Regents' Examinations.

Credit will be accepted also from the examinations conducted by the Regents of the University of the State of New York.

(c) Admission by Transfer of Entrance Credits From Other Colleges or Universities

A person who has been admitted to another college or university of recognized standing will be admitted to this University by presenting a certificate of honorable dismissal from the institution from which he comes and an official statement of the subjects upon which he was admitted to such institution, provided that the work appears to be equivalent to that required by the University of Maryland.

Students intending to transfer to the University of Maryland must present an official statement of their college credits to the Registrar.

Special Requirements of Colleges and Schools

Requirements for admission to the Schools of Medicine, Law, Pharmacy and Dentistry will be found elsewhere under chapters given to these schools.

Admission to Advanced Standing

A student coming from a standard college or university may secure advanced standing by presenting a statement of his complete academic record certified by the proper officials. This statement must be accompanied by a set of secondary school credentials presented for admission to the college or university. Full credit is given for work done in other institutions when found to be equivalent in extent and quality to that required at this University. An applicant may request examination for advanced credit in any subject. In case the character of a student's work in any subject is such as to create doubt as to the quality of that which preceded it elsewhere, the University reserves the right to revoke at any time any credit assigned on certificate.

Regardless of the amount of advanced standing a student may secure, in no case will he be given the baccalaureate degree with less than one year of resident work.

Unclassified Students

Mature persons who have had insufficient preparation to pursue any of the four-year curricula may, with the consent of the Committee on Entrance, matriculate for such subjects as they are fitted to take. Such students, however, will be ineligible for degrees.

Graduation, Degrees, Diplomas and Certificates

All undergraduate four-year courses at College Park lead to the degree of Bachelor of Science or Bachelor of Arts. The total requirements for graduation vary, according to the type of work in the different colleges and schools. A credit hour is one lecture or recitation each week for one semester; two or three hours of laboratory or field work are counted equivalent to one lecture or recitation. All practical work is scheduled for two or three hours, depending upon the nature of the work. To find full information of requirements, the student should refer to the description of the school in which interested.

Candidates are recommended for graduation after they have completed the prescribed course of study, including all the required work and enough electives to total the credit hours required in the various colleges and schools.

The University confers the following degrees: Bachelor of Arts, Bachelor of Science, Bachelor of Business Administration, Master of Arts, Master of Science, Doctor of Philosophy in Arts, Doctor of Philosophy in Science, Civil Engineer, Mechanical Engineer, Electrical Engineer, Bachelor of Laws, Doctor of Medicine, Doctor of Dental Surgery, Graduate in Pharmacy and Pharmaceutical Chemist.

Degrees are not granted to the students in the two-year curricula, but at graduation time certificates are awarded.

FEES AND EXPENSES

MAKE ALL CHECKS PAYABLE TO THE UNIVERSITY OF MARYLAND FOR THE EXACT AMOUNT OF THE SEMESTER CHARGES.

In order to reduce the cost of operation, all fees are due and payable as a part of the student's registration and *all persons must come prepared to pay the full amount of the semester charges. No student will be admitted to classes until such payment has been made.*

The following listed charges represent the fees which must be paid by all students who room and board at the University. Special fees will be found in paragraphs immediately following the list of charges.

	<i>First Semester</i>	<i>Second Semester</i>	<i>Year Totals</i>
Fixed charges	\$30.00	\$30.00	\$60.00
Board (36 weeks at \$6.75)	121.50	121.50	243.00
Lodging (38 weeks at \$1.85)	35.15	35.15	70.30
Laundry (36 weeks at \$.60)	10.80	10.80	21.60
*Reserve fee	10.00	.....	10.00
†Athletic fee	15.00	.....	15.00
Totals (exclusive of special fees)	\$222.45	\$197.45	\$419.90

A matriculation fee of \$5.00 will be charged to all freshmen.

No credits will be issued to students who leave the University without having turned in the required clearance slip to the Financial Department and paid all charges shown thereon.

*This fee will be returned at the close of the year, less damage charges, if any, except to those students who have occupied rooms without first signing the room register kept by the Dormitory Manager at his office in Room No. 121 Silvester Hall, or who have moved from the rooms assigned to them, without his approval, in which case the entire fee will be forfeited, and damage or other charges which may be shown on their clearance slips will be made against them.

†These fees constitute a fund which is collected from all students in the University at College Park for the maintenance of athletics, and the entire amount is turned over to the Athletic Board for disbursement.

NON-RESIDENTS, except from the District of Columbia, will be charged a fee of \$50.00 per semester.

Students taking pre-medical work will be charged a special fee of \$25.00 per semester.

If a check or draft accepted by the Financial Department for collection is returned by the bank on which it is drawn, the student who presented it will be required to pay a fine of \$5.00 in addition to the amount of the check and the protest fees. An additional fine of 50 cents per day will be added for every day in excess of seven days from the time notice is sent to the student until the check or draft is made good.

ROOM RESERVATIONS. Students who desire to reserve rooms in the dormitories must register their names and their selection of rooms with the dormitory manager, depositing \$10.00 with him as a reserve fee. (See table of expenses.) This fee will be deducted from the first semester charges if a student returns. If not, it will be forfeited. For further information regarding this fee see preceding paragraph. Students who fail to make reservation may not be able to obtain rooms upon their return. Reservations may be made at any time during the closing month of the year by students already in the University, and by new students up to September 1st, 1923. No rooms will be held for old students unless the reservation fee has been paid.

The cost of books, supplies and personal needs is not taken into consideration in the foregoing statement. They depend largely on the tastes and habits of the individual student. Books and supplies average about \$40.00.

The fixed charges made to all students are a part payment of overhead expenses, such as janitor service, hospital and doctor's fees, general laboratory fees, library, physical training, etc.

Board, lodging and other charges may vary from semester to semester, but every effort will be made to keep expenses as low as possible.

In case of illness requiring a special nurse or special medical attention, the expense must be borne by the student.

Board and lodging may be obtained at boarding houses or in private families if desired.

Students rooming outside the University may obtain board and laundry at the same rates as those living in the dormitories.

Day students may get lunch at nearby lunch rooms.

All the University property in possession of the individual student will be charged against him, and the parent or guardian must assume responsibility for its return without injury other than results from ordinary wear.

All students assigned to dormitories are required to provide themselves with one pair of blankets for single bed, two pairs of sheets for single bed, four pillow cases, six towels, one pillow, two laundry bags, one broom and one waste basket.

Special Fees

Bacteriology Laboratory fee.....	\$2.00
Fee for special condition examination.....	1.00
Fee for changes in registration after first week of semester.....	1.00
Fee for failure to register within seven days after opening of semester	2.00
Graduation fee payable prior to graduation.....	10.00
Certificate fee payable prior to graduation.....	5.00
Fee for failure to file schedule card in Registrar's office within seven days after opening of semester.....	1.00

No diploma will be conferred upon, nor any certificate granted to, a student who is in arrears in his accounts.

Graduate Fees

Each graduate student is subject to a matriculation fee of \$10.00, a fixed charge of \$1.50 per semester credit hour, and a diploma fee of \$10.00.

Withdrawals

When a student desires to withdraw from the University, he is required to secure from his Dean a written approval, which must be presented to the Registrar. CHARGES FOR FULL TIME WILL BE CONTINUED AGAINST HIM UNLESS THIS IS DONE.

Students who withdraw before the end of any semester will be charged \$7.00 per week for board and \$2.00 per week for lodging for that portion of the semester preceding their withdrawal.

Refunds

No fixed charge will be refunded.

No laboratory fee will be refunded after the middle of the semester.

The low charge for board at the dining hall is made possible only by the use of the semester basis in figuring costs. The overhead is fixed by the semester and no refunds can be made for short absences without a loss to the dining hall and to the students who eat there. Therefore, no refunds will be made except in case of withdrawal or prolonged absence due to sickness or unavoidable cause.

Baltimore Schools

The fees and expenses for schools located in Baltimore are:

	Matriculation	Tuition	Laboratory	Graduation
Medical	\$5.00 each year	\$300.00*		
Dental	5.00 once only	200.00	\$10.00	\$15.00
Pharmacy	5.00 " "	175.00	.....	10.00
Law	10.00 " "	100.00†	.....	10.00

*Medical Students who are permanent residents of the State of Maryland are allowed a reduction in tuition of \$50.00.

†Tuition for freshmen and new students in the Law School is \$125.00.

Commercial Extension Course

Matriculation fee of \$5.00 is charged all regular or special students. Payable once only.

Day Course.....\$185.00 a year, payable \$92.50 each semester in advance

Evening Course... 95.00 a year, payable 47.50 each semester in advance

Special Evening Classes—\$35.00 in advance, or \$20.00 each semester.

Graduation Fee—\$10.00.

Applicants for admission to any of the schools are charged a record investigation fee of \$2.00.

Dental students are required to pay, once only, a dissecting fee of \$15.00.

A breakage fee of \$10.00 is charged to each student in the Medical School and School of Pharmacy.

ADMINISTRATIVE PROCEDURE

Date of Registration and Penalty for Late Registration

Registration for the first semester takes place during the first two days of the term. Students register for the second semester during the week beginning January 21, 1924.

After seven days from the opening of a semester fees are imposed for a change of registration or for late registration.

Students, who for any reason are more than seven days late in registering, must secure permission from the instructors in charge for admission to courses. Such permission must be given in writing to the student's dean before course cards will be issued.

Physical Examination and Physical Training

All students who enter the University undergo a physical examination by the physician in charge. This is conducted in cooperation with the Military Department under the direction of which most of the work in physical training is done. The examination is also a measure for protecting the health of the student body.

Maximum and Minimum Schedule

The prescribed number of credit hours that a student ordinarily may carry ranges from 15 to 19. No student may register for less than the ordinary number without permission from his dean.

A student who obtains an average grade of "B" in any semester may, with the permission of his dean, be allowed to carry such additional courses in the succeeding semester as may be scheduled. This privilege is forfeited if the student's average grade falls below "B".

No regular student working for a degree may carry less than 12 credit hours.

Examinations

Examinations are given at the end of each semester. The final grade is derived from the average daily grade and the examination grade.

Grading System

Students are graded with the following marks: A, B, C, D, E, and F. A, B, C, and D are passing; E represents a condition and F a failure.

Student Advisory and Honor System

A Committee comprising five members of the faculty acts as the advisory board to the Students' Executive Council of the Students' Assembly. The Students' Executive Council, with the aid of the Advisory Board, manages all student affairs. The Honor System is in effect for all students, and each student always is on his honor to live up to the highest principles of democratic government.

The Students' Assembly

All students assemble in the Auditorium at 11:20 o'clock every Wednesday. Every other Wednesday is turned over to the students to transact business which concerns the whole student body. The Department of Public Speaking arranges the programme for the remaining Wednesdays.

General Suggestions to New Students

Candidates for admission to the University should correspond with the Registrar at College Park, who in turn will supply them with the necessary forms for transferring preparatory credits. It is advisable for prospective students to dispose of the preliminaries early in the year in order to prevent disappointments, for if a student comes to the University without taking the preliminary steps he may find that he does not have enough credits to enter. The Registrar is always glad to advise with the students concerning their preparation. The Registrar sends out a general statement of the procedure for new students to follow after they are duly admitted to the University.

College of Agriculture

Agriculture is the great primary pursuit of the human race. Permanent prosperity is in direct proportion to the producing capacity of the land. Land-Grant Colleges were founded, therefore, to foster the teaching of scientific agriculture. The primary aim of the College of Agriculture of the University of Maryland is to teach the best and most practical methods of farm production, the economics of marketing and distribution, and methods to improve the economic and social position of the farmer. Agriculture is constantly changing; no cropping system can be worked out once and for all time; new as well as old pests and diseases must be constantly combatted; better feeding and breeding of live stock and more efficient marketing methods must be substituted for the old and inefficient methods if agriculture is to maintain its importance with the other industries. Above all agriculture must be made profitable to the tiller of the soil and must be established as a great paying business for those who engage in it as well as for town and city dwellers.

The curricula of the College of Agriculture are planned to give the student a thorough and practical course in agriculture and related sciences, and at the same time afford an opportunity to specialize along the lines in which he is particularly interested. Likewise, instruction is given which will prepare students for teaching positions in agriculture, for governmental investigation and experimental work, for positions as county agents, farm bureau leaders, farm supervisors, as well as for farming.

Departments

The College of Agriculture includes the following departments: (1) Agronomy (including Forage Crops, Grain Crops, Genetics); (2) Agricultural Education (see College of Education); (3) Animal Husbandry; (4) Veterinary Medicine; (5) Bacteriology and Sanitation; (6) Dairy Husbandry; (7) Entomology and Bee Culture; (8) Agricultural Engineering; (9) Farm Management; (10) Farm Forestry; (11) Horticulture (including Pomology, Vegetable Gardening, Landscape Gardening and Floriculture); (12) Plant Pathology; (13) Plant Physiology and Bio-chemistry; (14) Poultry Husbandry; (15) Soils.

Admission

The college is open on equal terms to both sexes. To be admitted to full standing the applicant must be a graduate of an approved high school or its equivalent. Non-graduates of high school must present by exami-

nation or certificate fifteen units of secondary school work. Of the fifteen units seven are required as follows:

English	3
Mathematics	2
Science	1
History	1
Total.....	7

A list of elective subjects and other general information may be found in the fore part of the catalogue under the heading "Admission".

Requirements for Graduation

One hundred and thirty-nine semester credit hours are required for graduation. The prescribed work is the same for all freshmen and sophomores (except for those specializing in Floriculture, Landscape Gardening, Farm Forestry and Entomology); thereafter the work required varies according to the major and minor subjects pursued by the students.

Major Subject

Before the beginning of the third year the student chooses a department in which he will do his major work. After choosing his major subject some member of the department (appointed by the head of the department) will become the student's advisor in the selection of courses. The advisor may designate a minor subject if he deems it necessary.

The minimum requirements for a major in one department are fourteen semester credit hours, and the maximum hours permitted to count toward a degree are thirty-five semester credit hours.

Farm Practice

Students without farm experience do not, as a rule, secure full benefit from any of the agricultural courses. A committee has been appointed for the purpose of assisting all students coming to the college without farm training to obtain a fair knowledge of actual farm practice. Some time during the year the committee will examine all members of the freshman class to determine whether or not their experience satisfies the farm practice requirements. Those not able to pass this examination will be required to spend at least three months on a farm designated by or having the approval of the committee. If the student has had no experience whatsoever before entering college, he may be required to spend six to nine months on a farm. The committee reserves the right also to call on all students so placed for written reports showing the experience gained while on these farms.

Agricultural Experiment Station

The College of Agriculture works in cooperation with the Agricultural Experiment Station. Much of the subject matter in agricultural courses is tested by the station or furnished as original from its researches. Methods and material which are valuable in one state are

often worthless in another, and the station makes it a point to find what is best for the State of Maryland.

The general farm, orchards, gardens and herds at the Experiment Station are available for laboratory and class use by the college.

Fellowships

A limited number of graduate fellowships which carry remuneration of \$500 to \$1,000 yearly are available to graduate students. Students who hold these fellowships spend a portion of their time assisting in classes and laboratories. The rest of the time may be used for original investigation or assigned study. The time required for a degree depends upon the nature of the fellowship held.

Curricula in Agriculture

All students registered for agriculture take the same work in the freshman and sophomore years, except those registered for landscape gardening, floriculture and entomology. At the end of the sophomore year they may elect to specialize along the lines in which they are particularly interested.

	Semester:	I	II
FRESHMAN YEAR			
Gen'l Chem. and Qual. Analysis (Inorg. Chem. 101).....		4	4
General Zoology (Zool. 101).....		4	..
*General Botany (Bot. 101).....		..	4
Composition and Rhetoric (Eng. 101).....		3	3
Public Speaking (P. S. 101).....		1	1
Basic R. O. T. C. (M. I. 101).....		2	2
(Elect one of the following groups)			
Group A—			
Animal Husbandry (A. H. 101).....		4	..
Vegetable Gardening .....		..	4
Group B—			
Language		3	3
Group C—			
Mathematics		3	3
SOPHOMORE YEAR			
	Semester:	I	II
Agricultural Chemistry (Ag. Chem. 101).....		3	3
Geology (Soils 100).....		3	..
Principles of Soil Management (Soils 101).....		..	3
Elementary Pomology (Hort. 101).....		3	..
Field Crop Production (Agron. 101).....		3	3
Feeds and Feeding (A. H. 102).....		3	..
Dairying (D. H. 101).....		..	3
**Physics or Principles of Economics (Physics 103 or Econ. 103) .....		..	4
Basic R. O. T. C. (M. I. 102).....		2	2

*Offered each semester.

**Only those students who are excused from Physics will take Economics.

AGRICULTURAL ENGINEERING

The Department of Agricultural Engineering is organized to offer students of agriculture training in those branches of agriculture which are based upon engineering principles. These subjects may be grouped under three heads: farm machinery, farm buildings, and farm drainage.

The modern tendency in farming is to replace hand labor, requiring the use of many men, by large machines which do the work of many men yet require only one man for their operation. In many cases horses are being replaced by tractors to supply the motive force for these machines. Trucks and automobiles are used on many farms. It is highly advisable that the student of any branch of agriculture have a working knowledge of the construction and adjustments of these machines.

About one-sixth of the total value of farms is invested in the buildings. The study of the design of the various buildings, from the standpoint of convenience, economy and appearance, is, therefore, important.

The study of drainage includes the principles of tile drainage, the layout and construction of tile drain systems, the use of open ditches, and a study of the Maryland drainage laws.

Agronomy

The curriculum in agronomy aims to give the student the fundamental principles of crop production. Special attempt is made to adapt the work to the young man who wishes to apply scientific principles of field crop culture and improvement on the farm. At the same time enough freedom is given the student in the way of electives so that he can register for subjects which might go along with the growing of crops on his particular farm. A student graduating from the course in agronomy should be well fitted for general farming, investigational work in the State or Federal Experiment Stations, or county agent work.

The Agronomy Department has a large, well equipped laboratory in the new Agricultural Building and a greenhouse for student use, besides free access to the Experiment Station fields and equipment.

Curriculum

JUNIOR YEAR		Semester:	I	II
Genetics (Agron. 110)		3	..
Grain and Hay Judging (Agron. 104)		1	..
Grading Farm Crops (Agron. 103)	2
Crop Varieties (Agron. 112)	2
General Bacteriology (Bact. 101)		3	..
Soil Bacteriology (Soils 107)	3
Expository Writing (Eng. 105 and 106)		2	2
Economics (Econ. 103)	4
Plant Physiology (Plt. Phy. 101)		4	..
Electives		5	4

SENIOR YEAR

	Semester:	I	II
Crop Breeding (Agron. 113)	2	..
Advanced Genetics (Agron. 111)	3	..
Methods of Crop Investigation (Agron. 121)	2
Cropping Systems and Methods (Agron. 120)	2
Soil Survey and Classification (Soils 105)	2	..
Farm Drainage (Ag. Eng. 107)	2
Farm Machinery (Ag. Eng. 101)	3	..
Farm Forestry (For. 101)	3
Farm Management (F. M. 101)	4	..
Seminar (Agron. 129)	1	1
Electives	2	7

Agricultural Education

The Department of Agricultural Education was organized primarily to train students who are preparing to teach agriculture in secondary schools. In addition to the regular entrance requirements of the University, students electing to specialize in Agricultural Education must present evidence of having acquired adequate farm experience after reaching the age of fourteen years.

Students must arrange their work so that approximately forty per cent will be spent on technical agriculture, twenty-five per cent on scientific subjects, twenty per cent on subjects of a general educational character and from twelve to fifteen per cent on subjects pertaining to professional education.

Students electing Agricultural Education for their major work may register in either the College of Agriculture or College of Education.

(For detailed description of the curriculum in agricultural education see the College of Education.)

Animal Husbandry

The courses in animal husbandry have been developed with the idea of teaching the essential principles underlying the breeding, feeding, growth, development and management of livestock, together with the economics of the livestock industry.

The curriculum in animal husbandry is so planned as to allow of plenty of latitude in the selection of courses outside of the department, thus giving the student a broad, fundamental training and fitting him to become the owner, manager or superintendent of general or special livestock farms.

Opportunity for specialization is offered to those who may desire to become instructors or investigators in the field of animal husbandry.

Some livestock are maintained at the university. In addition, there are available, for use in instruction, the herds of livestock owned by the Federal Bureau of Animal Industry at Beltsville, Maryland. Through the courtesy of Maryland breeders, some private herds are also available for inspection and instruction.

Curriculum

JUNIOR YEAR

	Semester:	I	II
Expository Writing (Eng. 105 and 106).....		2	2
General Bacteriology (Bact. 101).....		3	3
Agricultural Economics (A. E. 101).....		3	..
Principles of Breeding (A. H. 103).....		..	3
Swine Production (A. H. 104).....		3	..
Horse and Mule Production (A. H. 106).....		..	2
Dairy Production (D. H. 103).....		..	4
Anatomy Physiology (V. M. 101).....		3	..
Genetics (Agron. 110).....		3	..
Electives	3

SENIOR YEAR

	Semester:	I	II
Farm Management (F. M. 101).....		4	..
Sheep Production (A. H. 107).....		..	3
Farm Machinery (Ag. Eng. 101).....		3	..
Animal Diseases (V. M. 102).....		..	4
Meat and Meat Products (A. H. 108).....		3	..
Farm Drainage (Ag. Eng. 107).....		..	2
Physiological Chemistry (Agri. Chem. 108).....		3	..
Seminar (A. H. 111).....		1	1
Electives		3	7

Bacteriology and Sanitation

The present organization of this department was brought about with two main purposes in view. The first is to give all the students of the University an opportunity to obtain a general knowledge of the subject. This is of prime importance, as bacteriology is a basic subject and is of as much fundamental importance as physics or chemistry. The second purpose, and the one for which this curriculum was designed, is to fit students for positions along bacteriological lines. This includes dairy bacteriologists and inspectors; soils bacteriologists; federal, state and municipal bacteriologists for public health positions; research positions; commercial positions, etc. At present, the demand for individuals qualified for this work is much greater than the supply, and with the development of the field this condition is bound to exist for some time.

Curriculum

SOPHOMORE YEAR

	Semester:	I	II
Agricultural Chemistry (Ag. Chem. 101).....		3	3
*Physics (Phys. 103) or Economics (Econ. 103).....		..	4
Language		3	3
Feeds and Feeding (A. H. 102).....		3	..
Dairying (D. H. 101).....		..	3
Geology (Geol. 101).....		3	..
Electives		3	3
Basic R. O. T. C. (M. I. 102).....		2	2

JUNIOR YEAR

	Semester:	I	II
General Bacteriology (Bact. 101-2).....		3	3
Expository Writing (Eng. 105 and 106).....		2	2
Language		3	3
Agricultural Economics (Ag. E. 101).....		3	..
Dairy Production (D. H. 103).....		..	4
Market Milk (D. H. 108).....		3	..
Electives		3	5

SENIOR YEAR

	Semester:	I	II
Advanced Bacteriology (Bact. 104-5).....		2-5	2-5
Dairy Bacteriology (Bact. 103).....		3	3
Physiological Chemistry (Ag. Chem. 108).....		3	..
Seminar (Bact. 110-111).....		1	1
Electives		5-8	8-11

DAIRY HUSBANDRY

The courses in dairy husbandry are organized to give the student a working knowledge of the basic principles underlying successful dairy production, market milk, dairy manufacturing and marketing. The options offered in dairy production are planned to meet the needs of students desiring to become breeders of purebred dairy cattle, farm managers and teachers. The options offered in dairy manufactures are planned to meet the needs of students desiring to enter commercial work in the manufacture of butter, cheese and ice cream and those desiring to become inspectors of these products.

A dairy herd is maintained for experimental purposes as well as for teaching, the care, feeding and management of dairy cattle. Graduates from these courses should be fitted to take up dairy farming, teaching, or experiment station work. Students are sent throughout the state to supervise Advanced Registry tests and to study general conditions as they exist on leading dairy farms.

The graduate courses are designed to meet the needs of those who desire to take up advanced work in dairy husbandry. Proximity to the laboratories and libraries of the Department of Agriculture in Washing-

*Only those students who are excused from Physics will take Economics.

ton and the Government herds at Beltsville place this department in a splendid position to offer an exceptional opportunity in graduate work in the fields of production, manufacture and marketing to those desiring such training.

DAIRY PRODUCTION

Curriculum

JUNIOR YEAR	Semester:	I	II
Expository Writing (Eng. 105).....		2	2
Principles of Economics (Econ. 101).....		..	4
Elementary Pomology (Hort. 101).....		3	..
General Bacteriology (Bact. 101).....		3	..
Dairy Bacteriology (Bact. 103).....		..	3
Dairy Production (D. H. 103).....		..	4
Advanced Registry Work and Breed Study (D. H. 104)....		..	2
Farm Dairying (D. H. 102).....		3	..
Judging of Dairy Cattle (D. H. 105).....		..	2
Principles of Breeding (A. H. 104).....		3	..
Electives		3	..

SENIOR YEAR	Semester:	I	II
Agricultural Economics (A. E. 101).....		3	..
Dairy Bacteriology (Bact. 104).....		3	..
Market Milk (D. H. 108).....		3	3
Animal Diseases (V. M. 101).....		..	3
Advanced Testing (D. H. 109).....		..	4
Thesis (D. H. 111).....		2	2
Seminar (D. H. 110).....		1	1
Electives		5	4

DAIRY MANUFACTURES

Curriculum

SOPHOMORE YEAR	Semester:	I	II
Agricultural Chemistry (Agr. Chem. 101-102).....		3	3
Geology (Soils 100).....		3	..
Physics (Phy. 103).....		..	4
Language		3	3
Elementary Economics (Econ. 101).....		3	..
Basic R. O. T. C. (M. I. 102).....		2	2
Field Crop Production (Agro. 101).....		..	3
Dairying (D. H. 101).....		..	3
Electives		3	..

JUNIOR YEAR

	Semester:	I	II
Expository Writing (Eng. 105).....		2	2
Agricultural Economics (A. E. 101).....		3	..
General Bacteriology (Bact. 101).....		3	..
Dairy Bacteriology (Bact. 103).....		..	3
Accountancy		3	3
Farm Dairying (D. H. 102).....		3	..
Dairy Manufactures (D. H. 107).....		4	5
Electives	4

SENIOR YEAR

	Semester:	I	II
Market Milk (D. H. 108).....		3	3
Advanced Testing (D. H. 109).....		..	4
Dairy Bacteriology (Bact. 104).....		3	..
Seminar (D. H. 110).....		1	1
Thesis (D. H. 111).....		2	2
Electives		8	7

ENTOMOLOGY AND BEE CULTURE

This department is concerned with the teaching of entomology to all agricultural students as basic for future work in economic entomology and for its pedagogic and cultural value.

The success of the farmer and particularly the fruit grower is in a large measure dependent upon his knowledge of the methods of preventing or combating the pests that menace his crops each year. Successful methods of control are emphasized in the economic courses.

There is an ever-increasing demand for trained entomologists. The entomological work of the Experiment Station, the Extension Service, the College of Agriculture and the office of the State Entomologist being in one administrative unit, enables the student in this department to avail himself of the many advantages accruing therefrom. Advanced students have special advantages in that they may be assigned to work on station projects already under way.

Courses in beekeeping are offered and new courses will be added as the demand warrants. The field for specialists in beekeeping is especially attractive now and commercial beekeeping is productive of greater profits each year.

Curriculum

SOPHOMORE YEAR	Semester:	I	II
Embryology (Zool. 104).....		4	..
General Entomology (Ent. 101).....		..	3
Physics (Physics 104).....		4	4
Expository Writing (Eng. 105-6).....		2	2
Organic Chemistry (Org. Chem. 103).....		4	4
Basic R. O. T. C. (M. I. 102).....		2	2
Electives		2	4

JUNIOR YEAR		Semester:	I	II
Advanced Entomology (Ent. 102)		4	4
General Bacteriology (Bact. 101-102)		3	3
Electives		10	10
SENIOR YEAR		Semester:	I	II
Economic Entomology (Ent. 103)		5	5
Thesis (Ent. 105)		2	2
Seminar (Ent. 110)		1	1
Electives		9	9

FARM FORESTRY

Designed to furnish instruction to students in the College of Agriculture who wish to specialize in farm forestry. In the eastern third of the United States the woodland on farms constitutes 37 per cent of the total farm acreage, while the improved land on farms constitutes 52 per cent, the remaining 11 per cent is largely waste land, unsuited for field crops, that should be planted in timber crops to make it productive. Farm forestry is therefore of vital importance in the conduct of farm operations. The field for graduates in this course might properly include:

1. Managers of large tracts or estates principally woodland, but partly devoted to growing field crops.
2. County agents, or teachers of agriculture in sections consisting largely of forest land.
3. Farm managers where woodlands constitute a considerable part of the farm acreage.
4. An undergraduate training in forestry that will give advanced standing in a graduate forestry school.

Freshman Year

Same as general agricultural course.

Sophomore Year

Same as general agricultural course except substitution of systematic botany for principles of dairying and the addition of forestry, 101-102.

JUNIOR YEAR		Semester:	I	II
Forest Botany		2	..
Silviculture		3(2+1)	3
Plane Surveying (Surv. 101-103)		1	2
Plant Anatomy (Bot. 104)		2	..
Expository Writing (Eng. 105-106)		2	2
Elements of Economics (104)	4
Agricultural Economics (A. E. 101)	2
Forest Entomology	2
Electives		3	6

SENIOR YEAR		Semester:	I	II
Forest Measurements	.....		2	2
Management of Woodlands	.....		2	2
Protection of the Forest	.....		..	1
Wood Technology	.....		..	1
Utilization of Forest Products	.....		2	..
Wood Preservation	.....		..	1
Forest Pathology	.....		..	1
Farm Management (F. M. 101-102)	.....		4	..
Plant Ecology (Plt. Phys. 103)	.....		..(1+1)	2
Soil Surveying and Classification of Soils (106)	....(1+1)		2	..
Electives	.....		5	7

FARM MANAGEMENT AND AGRICULTURAL ECONOMICS

In this department are grouped courses in farm management and agricultural economics.

Farm management has been defined as the business of the individual farmer to organize his business so as to produce the greatest continuous profit. This can be done, however, only when the organization is in accordance with the broader principles of agricultural economics. It requires not only knowledge of the many factors involved in the production of crops and animals, but also administrative ability to coordinate them into the most efficient farm organization. Farming is a business and as such demands for its successful conduct the use of business methods. As a prerequisite to the technical farm management course there is offered a course in farm accounting. This course is not elaborate, but is designed to meet the need for a simple yet accurate system of farm business records.

The aim of the farm management course is to assist the student to perceive the just relationship of the several factors of production and disposition as applicable to local conditions and to develop in him executive and administrative capacity.

Agricultural economics considers the fundamental principles underlying production, distribution and consumption, more especially as they bear upon agricultural conditions. Land, labor and capital are considered in their relationship to agriculture.

The farmer's work does not end with the production of crops or animal products. More and more it is evident that economical distribution is as important a factor in farming as is economical production.

Students well trained in farm management and agricultural economics are in demand for county agent work, farm bureau work, experiment station or United States Government investigation and college or secondary school teaching.

Curriculum			
JUNIOR YEAR			
	Semester:	I	II
Agricultural Economics (A. E. 101).....		3	..
Marketing of Farm Products (A. E. 102).....		..	3
Farm Accounting (F. M. 101).....		..	3
Business Law (Econ. 118).....		3	3
American Literature (Eng. 109 and 110).....		3	3
Grading Farm Crops (Agron. 103).....		..	2
General Bacteriology (Bact. 101).....		3	..
Expository Writing (Eng. 105-6).....		2	2
Electives		5	3

SENIOR YEAR			
	Semester:	I	II
Cooperation in Agriculture (A. E. 103).....		3	..
Transportation of Farm Products (A. E. 104).....		..	3
Seminar in Marketing (A. E. 105).....		1-3	..
Seminar (A. E. 106).....		..	1-3
Farm Management (F. M. 102).....		4	..
Farm Machinery (Ag. Eng. 101).....		2	..
Farm Drainage (Ag. Eng. 107).....		..	3
Corporation Finance (Econ. 108).....		2	..
Principles and Practices of International Trade (Com. 118).....		2	2
Electives		2-4	7-9

GENERAL AGRICULTURE

Those who do not care to specialize in any particular phase of agriculture will pursue the following curriculum:

JUNIOR YEAR			
	Semester:	I	II
Plant Pathology (Plt. Path. 101).....		3	..
Farm Dairying (D. H. 102).....		3	..
Plant Physiology (Plt. Phy. 101).....		3	..
General Bacteriology (Bact. 101).....		3	..
Expository Writing (Eng. 105 and 106).....		2	2
Poultry (P. H. 101).....		..	3
Genetics (Agron. 110).....		..	3
Farm Accounting (A. E. 103).....		..	2
Principles of Breeding (A. H. 103).....		..	3
Electives		3	4

SENIOR YEAR			
	Semester:	I	II
Farm Management (F. M. 101).....		3	..
Farm Machinery and Farm Shop (Ag. Eng. 101).....		3	..
Agricultural Economics (A. E. 101).....		3	..
Gas Engines, Tractor and Automobiles (Ag. Eng. 102).....		..	3
Cropping Systems and Methods (Agron. 120).....		..	2
Farm Drainage (Ag. Eng. 107).....		..	2
Farm Forestry (Forestry 101).....		..	3
Electives		8	7

HORTICULTURE

There are several reasons why the State of Maryland should be pre-eminent in the different lines of horticulture and offers such excellent opportunities for horticultural enterprises. A few of the more evident ones are the wide variation in soil and climate from the Eastern Shore to the mountainous counties of Allegany and Garrett in the west, the nearness to all of the large eastern markets and the large number of railroads, interurban lines and waterways, all of which combine to make marketing easy and comparatively cheap.

The Department of Horticulture offers four major lines of work, namely: pomology, olericulture, floriculture and landscape gardening. Students wishing to specialize in horticulture can arrange to take either a general course during the four years or enough work is offered in each division to allow students to specialize during the last two years in any of the four divisions. The courses have been planned to cover such subject matter that upon their completion students should be fitted either to engage in commercial work, county agent work, or teaching and investigational work in the state and federal institutions.

The department has at its disposal about twenty acres of ground devoted to vegetable gardening, eighteen acres of orchards, small fruits and vineyards, and twelve greenhouses, in which flowers and forcing crops are grown. Members of the teaching staff are likewise members of the experiment station staff and thus students have an opportunity to become acquainted with the research which the department is carrying on. Excellent opportunity for investigating new problems is afforded to advanced undergraduates and to graduate students.

Curricula

Students who intend to specialize in pomology or olericulture are required to take the same subjects which other agricultural students take during the first two years. Students who specialize in floriculture or landscape gardening, however, will take a slightly different curricula. It is felt that such students require certain special courses, which it is unnecessary to require of all agricultural students. The curricula follow:

POMOLOGY

JUNIOR YEAR			
	Semester:	I	II
Systematic Pomology (Hort. 103).....		3	..
Small Fruit Culture (Hort. 105).....		..	2
Fruit and Vegetable Judging (Hort. 107).....		2	..
Expository Writing (Eng. 105-6).....		2	2
Plant Physiology (Plt. Phys. 101).....		3	..
Principles of Economics (Econ. 103).....		..	4
General Floriculture (Hort. 121).....		2	..
General Pathology (Plt. Path. 101).....		3	..
General Entomology (Ent. 101).....		..	2
Genetics (Agron. 110).....		..	3
Electives		2	5

SENIOR YEAR		Semester:	I	II
Commercial Fruit Growing (Hort. 102).....	3	..	..	..
Economic Fruits of the World (Hort. 106).....	..	2	..	2
Horticultural Seminar (Hort. 135).....	1	1	1	1
General Landscape Gardening (Hort. 131).....	..	2	..	2
Farm Management (F. M. 102).....	4	..	..	..
Horticultural Breeding Practice (Hort. 141).....	..	1	..	1
Horticultural Research and Thesis (Hort. 142-143).....	2	2	2	2
Electives	7	9	9	9

Olericulture

JUNIOR YEAR		Semester:	I	II
Principles of Economics (Econ. 103).....	..	4	..	4
Small Fruit Culture (Hort. 105).....	..	2	..	2
General Plant Pathology (Plt. Path. 101).....	3	..	..	..
Genetics (Agron. 110).....	..	3	..	3
Expository Writing (Eng. 105-6).....	2	2	2	2
General Floriculture (Hort. 121).....	2	..	..	..
Plant Physiology (Plt. Phys. 101).....	3	..	..	..
Truck Crop Production (Hort. 113).....	..	3	..	3
Vegetable Forcing (Hort. 116).....	..	3	..	3
Electives	7	..	..	..

SENIOR YEAR		Semester:	I	II
Farm Management (F. M. 102).....	4	..	..	..
General Landscape Gardening (Hort. 127).....	..	2	..	2
Horticultural Breeding Practice (Hort. 133).....	..	1	..	1
Tuber and Root Crops (Hort. 112).....	2	..	..	..
Systematic Olericulture (Hort. 114).....	2	..	..	..
Advanced Truck Crop Production (Hort. 115).....	..	2	..	2
Horticultural Research and Thesis (Hort. 134).....	2	2	2	2
Horticultural Seminar (Hort. 135).....	1	1	1	1
Electives	6	9	9	9

Floriculture

SOPHOMORE YEAR		Semester:	I	II
Principles of Economics (Econ. 101).....	..	3	..	3
Plant Physiology (Plt. Phy. 101).....	4	..	..	..
General Geology (Soils 100).....	3	..	..	..
Principles of Soil Management (Soils 102).....	..	3	..	3
General Floriculture (Hort. 121).....	2	..	..	..
Elementary Pomology (Hort. 101).....	3	..	..	..
General Landscape Gardening (Hort. 127).....	..	2	..	2
Expository Writing (Eng. 105-106).....	2	2	2	2
Basic R. O. T. C. (M. I. 102).....	2	2	2	2
Electives	5	5	5	5

JUNIOR YEAR		Semester:	I	II
Greenhouse Management (Hort. 122).....	3	3	3	3
Floricultural Practice (Hort. 123).....	2	2	2	2
Greenhouse Construction (Hort. 124).....	..	2	..	2
Garden Flowers (Hort. 126).....	3	..	..	..
Agric. Economics (A. E. 101).....	3	..	..	..
General Plant Pathology (Plt Path. 101).....	3	..	..	..
Systematic Botany (Bot. 103).....	..	2	..	2
Elements of Landscape Design (Hort. 129).....	3	..	..	..
Electives .....	..	8	..	8

SENIOR YEAR		Semester:	I	II
Commercial Floriculture (Hort. 125).....	3	3	3	3
Plant Materials (Hort. 128).....	3	2	3	2
Vegetable Forcing (Hort. 116).....	..	3	..	3
Horticultural Breeding and Practice (Hort. 133).....	..	1	..	1
Horticultural Seminar (Hort. 135).....	1	1	1	1
Horticultural Research and Thesis (Hort. 134).....	2	2	2	2
Electives	8	5	5	5

LANDSCAPE GARDENING

FRESHMAN YEAR		Semester:	I	II
Gen. Chem. and Qual. Anal. (Inorg. Chem. 101).....	4	4	4	4
General Zoology (Zoo. 101).....	4	4	4	4
General Botany (Bot. 101).....	..	4	..	4
Composition and Rhetoric (Eng. 101).....	3	3	3	3
Public Speaking (P. S. 101-103).....	1	1	1	1
Mathematics (Math. 101).....	3	3	3	3
Basic R. O. T. C.....	2	2	2	2

SOPHOMORE YEAR		Semester:	I	II
Principles of Economics (Econ. 101).....	..	3	..	3
Plant Physiology (Plt. Phy. 101).....	3	..	..	..
General Geology (Geol. 100).....	3	..	..	..
Principles of Soil Management (Soils 101).....	..	3	..	3
Elementary Pomology (Hort. 101).....	3	..	..	..
Plane Surveying (Sur. 101-103).....	2	2	2	2
General Landscape Gardening (Hort. 127).....	..	2	..	2
Expository Writing (Eng. 105-6).....	2	2	2	2
Freehand Drawing (Dr. 101).....	1	..	..	..
Mechanical Drawing (Dr. 102).....	..	1	..	1
Basic R. O. T. C (M. I. 102).....	2	2	2	2
Electives	1	2	2	2

JUNIOR YEAR

	Semester:	I	II
Plant Materials (Hort. 128).....		3	2
History of Landscape Gardening (Hort. 131).....		..	1
Elements of Landscape Design (Hort. 129).....		3	..
Garden Flowers (Hort. 126).....		3	..
Agricultural Economics (A. E. 101).....		3	..
General Plant Pathology (Plt. Path. 101).....		2	..
Systematic Botany (Bot. 103).....		..	2
Drainage (F. E. 108).....		..	2
Electives		3	10

SENIOR YEAR

	Semester:	I	II
Landscape Design (Hort. 130).....		3	3
Civic Art (Hort. 132).....		2	..
Horticultural Research and Thesis (Hort. 134).....		2	2
Horticultural Seminar (Hort. 135).....		1	1
Electives		9	11

POULTRY HUSBANDRY

The course in Poultry Husbandry is designed to give the student a broad view of the practices of poultry raising. Those students who expect to develop into teachers, extension workers or investigators should choose as electives such subjects as psychology, economic history, sociology, philosophy, political science and kindred subjects.

Curriculum

JUNIOR YEAR

	Semester:	I	II
Poultry Production (Poultry 103).....		..	4
Expository Writing (Eng. 105 and 106).....		2	2
General Bacteriology (Bact. 101-102).....		3	3
Genetics (Agron. 110).....		4	..
Principles of Economics (Econ. 103).....		..	4
Poultry Keeping (Poultry 102).....		4	..
Electives		4	4

SENIOR YEAR

	Semester:	I	II
Farm Management (F. M. 101).....		4	..
Farm Accounting (A. E. 101).....		..	4
Agricultural Economics (A. E. 102).....		3	..
Animal Diseases (V. M. 101).....		..	3
Poultry Breeds (Poultry 104).....		4	..
Poultry Management (Poultry 105).....		..	4
Electives		6	6

SOILS

The Department of Soils gives instruction in the physics, chemistry and biology of the soil, the courses being designed to equip the future farmer with a complete knowledge of his soil and also to give adequate

training to students who desire to specialize in soils. Students who are preparing to take up research or teaching are expected to take graduate work in addition to the regular undergraduate courses that are offered. The department possesses the necessary equipment and facilities for the instruction in these subjects, and in addition affords opportunities for the student to come in contact with the research at the Agricultural Experiment Station, especially in the pot culture laboratories and on the experimental fields at the station and in other parts of the State.

Graduate students will find unusual opportunities to fit themselves for teaching soils in agricultural colleges, to conduct research in experiment stations, and to carry on work with the Bureau of Soils, United States Department of Agriculture.

Curriculum

JUNIOR YEAR

	Semester:	I	II
Expository Writing (Eng. 105 and 106).....		2	2
Principles of Economics (Gen. Econ. 105).....		..	4
General Bacteriology (Bact. 101).....		3	..
Soil Micro-biology (Soils 107).....		..	3
Fertilizers and Manures (Soils 102).....		3	..
Soil Fertility (Soils 103).....		..	3
Plant Physiology (Plt. Phy. 101).....		4	..
Cropping Systems and Methods (Agron. 120).....		..	2
Electives		5	3

SENIOR YEAR

	Semester:	I	II
Farm Management (F. M. 101).....		3	..
Agricultural Economics (A. E. 101).....		..	3
Methods of Soil Investigation (Soils 113).....		2	..
Soil Surveying and Classification (Soils 105).....		..	3
Soil Technology (Soils 110).....		3	3
Farm Drainage (A. Eng. 105).....		..	2
Seminar (Soils 114).....		1	1
Electives		8	5

VETERINARY MEDICINE

A definite project dealing with the genital diseases of domestic animals is now being developed. This research course is offered for those graduates of approved veterinary colleges who desire to lay special emphasis on this subject in connection with their work for an advanced degree.

The nearness to the libraries and laboratories of the various Federal Departments in Washington offers special facilities for the investigator.

SHORT COURSE IN AGRICULTURE

A. Students who have had four years of high school training or its equivalent may follow a two-year curriculum of regular college courses designated by the dean. A certificate is granted by the college upon com-

pletion of the work. If, after the student has been awarded a certificate, he is desirous of taking work for a degree, he may continue for two years with a regular college curriculum.

B. Another two-year curriculum, commonly known as "The Two-Year Agricultural Course," is sub-collegiate in nature. To enter this two-year work the applicant must have preparation at least equal to the work given in the seventh grade of the public schools. At the conclusion of the course students having completed the regular work as outlined are given a certificate stating the studies pursued during the time spent in the college. No college credit toward a degree is given for work done in any of these courses.

Description of Courses

AGRICULTURAL ENGINEERING

AGR. ENG. 101. *Farm Machinery and Farm Shop*—First semester. Three credits. Two lectures and one laboratory period.

A study of the design and adjustments of modern horse and tractor drawn machinery. Laboratory work consists of detailed study of actual machines, their calibration, adjustments and repair.

AGR. ENG. 102. *Gas Engines, Tractors and Automobiles*—Second semester. Four credits. Three lectures and one laboratory period.

A study of the design and operation of the various types of internal combustion engines used in farm practice.

AGR. ENG. 103. *Advanced Gas Engines*—First semester. Two credits. One lecture and one laboratory period. Prerequisite, Agr. Eng. 102.

An advanced study of the four cylinder gasoline engine.

AGR. ENG. 105. *Farm Buildings*—First semester. Two credits. Two lectures.

A study of all types of farm structures, also of farm heating, lighting, water supply and sanitation systems.

AGR. ENG. 107. *Farm Drainage*—Second semester. Two credits. One lecture and one laboratory period.

A study of farm drainage systems, including the theory of tile under-drainage, the depth and spacing of laterals, calculation of grades and methods of construction. A smaller amount of time will be spent upon drainage by open ditches, and the laws relating thereto.

AGRONOMY

AGRON. 101. *Field Crop Production*—First semester. Three credits. Two lectures and one laboratory period.

History, distribution, adaptation, culture, improvement and uses of cereal, forage, pasture, cover and green manure crops.

AGRON. 102. *Field Crop Production*—Second semester. Three credits. Two lectures and one laboratory period.

Continuation of Agron. 101.

AGRON. 103. *Grading Farm Crops*—Second semester. Two credits. One lecture and one laboratory period. Prerequisite, Agron. 101 and 102.

Market classifications and grades as recommended by the United States Bureau of Markets and practice in determining the grades.

AGRON. 104. *Grain and Hay Judging*—First semester. One credit. One laboratory period. Prerequisite, Agron. 101 and 102.

Practice in judging the cereals for milling, seeding and feeding purposes and practice in judging hay.

AGRON. 105. *Tobacco Production*—Second semester. Two credits. One lecture and one laboratory period. Offered only in even years; 1924, 1926 etc.

This course takes up in detail the handling of the crop from preparation of the plant bed through marketing, giving special attention to Maryland types of tobacco.

AGRON. 109. *Research and Thesis*—The year. Four credits.

Students are given a chance to do investigation work either in collecting information or in solving some problem in the laboratory, field or greenhouse.

For Advanced Undergraduates and Graduates

AGRON. 110. *Genetics*—First semester. Three credits. Two lectures and one laboratory period.

General courses in genetics designed to prepare students for later courses in the breeding of animals or crops in which they are specializing. (Kemp.)

AGRON. 111. *Advanced Genetics*—First semester. Three credits. Two lectures and one laboratory period. Prerequisite, Agron. 110.

This course takes up further details of mutants and chromosome irregularities, interference and coincidence, interspecies crosses and the results of physical attempts to modify germplasm. (Kemp.)

AGRON. 112. *Crop Varieties*—Second semester. Two credits. One lecture and one laboratory period. Prerequisites, Agron. 101 and Botany 101.

A study of the cereal classifications that have been adopted by the American Society of Agronomy with brief consideration of variety characteristics of other crop plants. (Kemp.)

AGRON. 113. *Crop Breeding*—First semester. Two credits. One lecture and one laboratory period. Prerequisite, Agron. 110.

The principles of breeding as applied to field crops and methods used in crop improvement. (Kemp.)

AGRON. 120. *Cropping Systems and Methods*—Second semester. Two credits. Two lectures. Prerequisites, Agron. 101 and Soils 101.

Principles and factors influencing cropping systems in the United States; study of rotation experiments; theories of cropping methods; and practice in arranging type farming systems. (Metzger.)

AGRON. 121. *Methods of Crop Investigations*—Second semester. Two credits. One lecture and one laboratory period.

A consideration of crop investigation methods at the various experiment stations and the standarization of such methods. (Kemp.)

AGRON. 129. *Seminar*—The year. Two credits. One report period each week.

The seminar is devoted largely to reports by students on current scientific publications dealing with problems in agronomy.

For Graduates

AGRON. 201. *Biometry*—The year. Credits determined by work accomplished.

Statistical methods as applied to problems in genetics and plant breeding. The methods used in the study of variations and correlations are discussed and the biometrical constants worked out by the class for certain assigned or selected data. (Kemp.)

AGRON. 202. *Crop Breeding*—The year. Credits determined by work accomplished.

The content of this course is similar to the undergraduate course in crop breeding but will be adapted more to graduate students and more of a range will be allowed in choice of material to suit special cases. (Kemp.)

AGRON. 209. *Research*—The year. Credits determined by work accomplished.

With the approval of the head of the department the student will be allowed to work on any problem in agronomy or he will be given a list of suggested problems from which he may make a selection. (Staff.)

ANIMAL HUSBANDRY

A. H. 101. *Types and Breeds*—Second semester. Three credits. Two lectures and one laboratory period.

The origin, history, characteristics and adaptability of the various breeds of livestock.

A. H. 102. *Feeds and Feeding*—First semester. Three credits. Two lecture and one laboratory period.

Elements of nutrition, source, characteristics and adaptability of the various food stuffs to the several classes of livestock. Feeding standards, the calculation and compounding of rations.

A. H. 103. *Principles of Breeding*—Second semester. Three credits. Two lectures and one laboratory period. Junior year.

This course covers the practical aspects of animal breeding including heredity, variations, selections, growth, development, systems of breeding and pedigree work.

A. H. 104. *Swine Production*—First semester. Three credits. Two lectures and one laboratory period.

The care, feeding, breeding, management and judging of swine and the economics of the swine industry.

A. H. 105. *Beef Production*—Second semester. Two credits. One lecture and one laboratory period.

The care, feeding, breeding, management of beef herds, fattening and the economics of the beef industry.

A. H. 106. *Horse and Mule Production*—Second semester. Two credits. One lecture and one laboratory period. Junior year.

The care, feeding, breeding and management of horses. Market classes and grades and judging.

A. H. 107. *Sheep Production*—Second semester. Three credits. Two lectures and one laboratory period. Senior year.

Care, feeding, breeding and management of the farm flock. Judging of sheep and the grading of wool.

A. H. 108. *Meat and Meat Products*—First semester. Three credits. Two lectures and one laboratory period. Senior year.

The slaughtering of farm livestock and the production, preparation and handling of meat and meat products.

A. H. 109. *Advanced Judging*—The year. Two credits. One laboratory period. Junior or senior year.

First Semester—The comparative and competitive judging of sheep and swine. Second Semester—The comparative and competitive judging of horses and beef cattle. Various trips to stock farms throughout the state will be made. Such judging teams as may be chosen to represent the University will be selected from among those taking this course.

A. H. 110. *Markets and Marketing*—First semester. Three credits. Two lectures and one laboratory. Senior year.

History and development, organization and status of the meat, wool and horse industries. Market classes and grades of livestock. American livestock markets and how they function.

A. H. 111. *Seminar*—The year. Two credits. One lecture period. Senior and graduate students only.

Problems, readings, and discussions on subjects relating to animal husbandry.

A. H. 112. *Research and Thesis*—The year. Six credits.

Work to be done by assignment under supervision. Original investigation in problems in animal husbandry, the results of which research are to be presented in the form of a thesis.

Advanced Undergraduate and Graduate Courses

A. H. 113. *Nutrition*—Second semester. Three credits. Two lectures and one laboratory. Senior year.

A study of digestion, assimilation, metabolism, protein and energy requirements. Methods of investigation and studies in the utilization of food and nutrients. (Meade.)

A. H. 114. *Animal Genetics and Statistical Methods*—First semester. Three credits. Two lectures and one laboratory period. Senior year. An introduction to genetics and statistical methods as applied more especially to animal breeding. (Meade.)

Graduate Courses

A. H. 201. *Research*—The year. Credit to be determined by the amount and character of work done.

BACTERIOLOGY AND SANITATION

BACT. 101. *General Bacteriology*—First semester. Three credits. One lecture and two laboratory periods. Junior year.

A brief history of bacteriology; microscopy; bacteria and their relation to nature; morphology, classification; preparation of culture media; sterilization and disinfection; microscopic and macroscopic examination of bacteria; classification, composition and uses of stains; isolation, cultivation and identification of aerobic and anaerobic bacteria; vital activities of bacteria; bacteria in relation to water, milk, food, soil, and air; pathogens and immunity.

BACT. 102. *General Bacteriology*—Second semester. Three credits. One lecture and two laboratory periods. Continuation of Bact. 101.

For Advanced Undergraduates and Graduates

BACT. 103. *Dairy Bacteriology*—The year. Six credits. One lecture and two laboratory periods. Senior year. Prerequisite Bact. 101.

Historical sketch; relation of bacteria to dairy products; preparation of media; plating by dilution method; direct microscopic examination; kinds of bacteria in milk and their development; pasteurization by flash and slow methods; sources of contamination of milk, including stable atmosphere, udder, exterior of animals, equipment and attendants; kind of utensils and their sterilization; sedimentation test, centrifugalization; methylene blue reduction test; leucocyte determination; anaerobic spore test; fresh and old milk; baby and special milk; market milk; graded milk; certified milk; sour milk; whey; cream; butter; cheese; condensed milk; powdered milk and milk starters. (Poelma.)

BACT. 104. *Advanced Bacteriology*—The year. Four to ten credits. Senior year. Prerequisite, Bact. 101.

This course is intended primarily to give the student a chance to develop his own initiative. He will be allowed to decide upon his project and work it out as much as possible in his own way under proper supervision. In this manner he will be able to apply his knowledge of bacteriology to a given problem in that particular field in which he is interested. He will get to know something of the methods of research. Familiarity with library practices and current literature will be included. (Pickens.)

BACT. 105. *Hematology*—First semester. Two credits. Senior year. Prerequisite, Bact. 101.

Procuring blood; estimating the amount of hemoglobin; color index; examination of red cells and leucocytes in fresh and stained preparations; numerical count of erythrocytes and leucocytes; differential count of leucocytes; sources and development of the formed elements of blood; pathological forms and counts. (Pickens.)

BACT. 106. *Urinalysis*—Second semester. Two credits. Senior year. Prerequisite, Bact. 101.

BACT. 107. *Thesis*—The year. Four credits. Senior year. Prerequisites, Bact. 101 and at least one of the advanced courses.

Investigation of given project, results of which are to be presented in the form of a thesis and submitted for credit toward graduation. (Pickens.)

BACT. 108. *Seminar*—The year. Two credits. Senior year.

The work will consist of making reports on individual projects and on recent scientific literature. (Pickens and Staff.)

For Graduate Students Only

BACT. 201. *Research Bacteriology*—The year. Two to six credits. Prerequisites, Bact. 101 and in certain cases, Bact. 103, depending upon the project. (Pickens.)

DAIRY HUSBANDRY

D. H. 101. *Dairying*—Second semester. Three credits. Two lectures and one laboratory period.

Origin, history, development, and characteristics of the dairy breeds. Extent of the dairy business and value of products. Composition of milk and Babcock testing. A study of production and handling of milk and milk products on the farm and the care, feeding and management of the farm herd of dairy cattle.

D. H. 102. *Farm Dairying*—First semester. Three credits. Two lectures and one laboratory period.

The secretion of milk and factors effecting the same; how bacteria and dirt get in; how they may be kept out; straining and handling during milking; surface coolers and precooling; milk cooling tanks; washing and sterilizing dairy utensils; practical work in the production of milk of low bacteria and low sediment content; practice in the handling of milking machines. Dairy barn arrangement and equipment and practices which influence quality in milk.

D. H. 103. *Dairy Production and Barn Practices*—Second semester. Four credits. Three lectures and one laboratory period. Junior year.

The care, feeding and management of dairy cattle, including selection of feeds; systems of herd feeding; feeding silage standards, soiling crops and pasture; selection, care, feeding and management of the sire; dairy

young stock and dairy herd development and management; method of keeping and forms for herd records; dairy cost accounts and barn practices which influence quantity in milk.

D. H. 104. *Advanced Registry, Association Work and Breed Study*—Second semester. Two credits.

Requirements for advanced registry; the management of long and short time tests; breed association rules; general work of the supervisor; care and testing of samples; cow testing associations; bull associations. Systems of breeding and pedigree study. Paid supervisors at \$3.00 per day are selected for work over week-ends from those taking this course.

D. G. 105. *Judging of Dairy Cattle*—Second semester. Two credits. One lecture and one laboratory period. Junior year.

Practice in the selection of dairy animals for production and exhibition. The feeding, fitting and showing of dairy animals. Trips to stock farms about the state will be taken in this course and such judging teams as may be chosen to represent the University will be selected from among those taking this course.

D. H. 106. *Judging Dairy Products*—Second semester. Two credits. One lecture and one laboratory period. Junior year.

Competitive judging of milk, butter and cheese. National authorities will address the class and trips will be taken to butter, cheese and milk markets for the purpose of familiarizing the students with the commercial quality of these products. Such teams as may be chosen to represent the University will be selected from those electing this course.

For Advanced Undergraduates and Graduates

D. H. 107. *Dairy Manufactures*—The year. Six credits. One lecture and two laboratory periods. Prerequisite, D. H. 101.

Manufacturing of butter, cheese, ice cream and preparation of culture buttermilks. Theory and practice of cream separation, pasteurization and processing of milk and cream. Plant management, storage of products and refrigeration.

D. H. 108. *Market Milk*—The year. Six credits. Two lectures and one laboratory period.

A study of market milk conditions and requirements of city milk trade; methods of handling market milk for direct consumption; securing a milk supply; methods of buying from producers; the transportation of milk; milk contractors; systems of handling milk in the city milk plants; dairy farm and city milk inspection, including dairy farm and dairy plant score cards, milk grading, standards, regulations, methods of appointment and duties of dairy and milk inspectors, control of milk supply in cities and towns.

D. H. 109. *Advanced Testing*—Second semester. Four credits. One lecture and three laboratory periods.

This course is designed to give the student a working knowledge and laboratory practice in the systematic analysis of all dairy products,

especially work linked with the manufacturing of these products or with their classification under the food laws. Practice is given in the detection of milk watering, using the cryoscope and serum methods, the addition of preservatives or colors, the comparison of butter and oleomargarine, the examination of filled milks and products, etc. Methods of working out a quality grading system for receiving stations and the preparation, standardization and use of solutions involved will be considered. Mojonier methods will be taken up and each student showing sufficient progress will be given an opportunity to do individual work of practical value.

D. H. 110. *Seminar*—The year. One or more credits. Senior year.

The seminar is devoted largely to reports by students on current bulletins and scientific papers in dairy production, manufacturing and market milk problems.

D. H. 111. *Thesis*—The year. Four credits. Senior year.

Students are given opportunities to conduct investigational work, either in collecting information or original research in Dairy Production, Manufactures and Market Milk.

D. H. 112. *Markets and Marketing of Dairy Products*—First semester. Three credits. Three lectures. Elective. Senior year.

History, development and organization of dairy marketing from the standpoint of producer, dealer and consumer.

D. H. 113. *Manufacture of Concentrated and Powdered Milks*—First semester. Two credits. One or two lectures. Elective. Senior year.

Evaporated milk, condensed milks, powdered milks—history of industry; location of factories; equipment; processes; standards and standardizing; filling; labeling; wrapping; packing of finished products; uses of and work in commercial testing.

Graduates

D. H. 201. *Farm Dairying*—First semester. Three credits. Two lectures and one laboratory period.

The secretion of milk and factors affecting; how bacteria and dirt get in; how they may be kept out; straining and handling during milking; surface coolers and precooling; milk cooling tanks; washing and sterilizing dairy utensils; practical work in the production of milk of low bacteria and low sediment content; practice in the handling of milk machines. Special problems will be assigned to graduate students taking this course.

D. H. 202. *Dairy Production*—Second semester. Four credits. Three lectures and one laboratory period.

The care, feeding and management of dairy cattle, including selection of feeds; systems of herd feeding; silage, soiling crops and pasture; selection, care and feeding the sire; dairy herd development and management; method of keeping and forms for herd records; dairy barn arrangement and equipment; dairy cost accounts and barn practices which

influence quality and quantity in milk. Special problems will be assigned to graduate students taking this course.

D. H. 203. *Research*—The year. Eight credits.

With the approval of the head of the department, students will be allowed to work on any problem in dairy production, manufactures or market milk they may choose, or be given a list of problems from which to select a research project.

In so far as schedules permit, students will be encouraged to visit the U. S. Dairy Division Laboratories and become acquainted with the dairy research problems in process and the methods of attack. This acquaints the student with the broad phases of research in dairy production and market milk.

D. H. 204. *Seminar*—Credits according to work done during the year.

Three Weeks' Course in Dairy Husbandry

Testing milk and cream. One week, January 7 to 12, 1924.

Dairy Production. Two weeks, January 14 to 26, 1924.

The subject matter in both courses is entirely practical, consisting of work in the testing laboratories and with the herd, supplemented by lectures.

In the Babcock testing course, the history, volume and value of dairy products are taken up as well as the study of the secretion of milk, the composition of milk, cream, condensed, evaporated milks and powders, the proper sampling of dairy products, and their accurate testing.

In the dairy production course which begins at the close of the milk testing work, practice will be given in the care, feeding and management of dairy cows, including feeds and feeding, breeds and breeding, Cow Testing Association and Advanced Registry work.

The purpose of the first course is to supply milk and cream testers for milk plants and creameries; and of the second to provide cow testers for Association and Advanced Registry work. The second course should also be of interest and value to farm boys concerned with dairy improvement.

Admission and Expenses

The requirements for entrance are that the applicants be at least 18 years of age and have a good common school education. No entrance examination is required. Persons having practical experience on the farm or who are working in milk receiving stations or milk plants should derive the greatest benefit from these courses. No tuition is charged to residents of Maryland. A fee of \$5 to cover cost of materials supplied in the various laboratories is assessed in this three weeks' course.

Room and board may be had with private families for from \$10 to \$15 per week. For additional information address inquiries to Dairy Husbandry Department, University of Maryland, College Park, Maryland. Lack of space limits the course to 25 persons.

ENTOMOLOGY AND BEE CULTURE

ENT. 101. *General Entomology*—Second semester. Three credits. Two lectures and one laboratory.

General principles of structural and systematic entomology. The relation of insects to the past experience and the future activities of the student. Lectures, recitations, laboratory work and collection trips.

ENT. 102. *Advanced Entomology*—The year. Four credits. Two lectures and two laboratory periods. Prerequisite, Ent. 101.

Insect morphology and biology, with special relation to applied entomology. The theory and practice of insect control.

ENT. 103. *Economic Entomology*—The year. Five credits. Three lectures and two laboratory periods. Prerequisite Ent. 102.

Problems in applied entomology, including life history studies, ecology and distribution, parasitism and control.

ENT. 104. *Systematic Entomology*—First semester. Two credits. Two laboratory periods. Prerequisite Ent. 101.

The student selects some group in which he is particularly interested and makes a detailed study of it. The course requires considerable field work and is supplemented by laboratory periods and frequent conferences.

ENT. 105. *Thesis*—The year. Two credits.

The intensive investigation of some zoological subject, the results of which are incorporated in a paper which is submitted as part of the requirement for graduation.

ENT. 106. *Insecticides and Their Application*—Second semester. Two credits. One lecture and one laboratory period.

The principles of insecticides, their chemistry, preparation and application; construction, care and use of spray and dusting machinery; fumigation, methods and apparatus in mechanical control.

ENT. 107. *Medical Entomology*—First semester. Two credits. Two lectures.

The relation of animals to disease, directly and as vectors of pathogenic organisms; the control of pests of man.

ENT. 108. *Scientific Delineation and Preparation*—First semester. Two credits. Two laboratory periods.

Photography, photomicrography, drawing freehand and with camera lucida, lantern-slide making, optical projection, preparation of exhibit and museum material, with especial reference to entomology.

ENT. 109. *Horticultural Entomology*—Second semester. Three credits. Two lectures and one laboratory period. Prerequisite Ent. 101.

Lectures, laboratory and field work on the morphology, biology and control of insect pests of horticultural crops.

For Advanced Undergraduates and Graduates

ENT. 110 *Seminar*—The year. One credit. Time to be arranged.

Presentation of original work, book reviews and abstracts of the more important literature.

Graduate Students

ENT. 201. *Entomological Problems*—Two credits.

Studies of minor problems in morphology, taxonomy and applied entomology, with particular reference to preparation for individual research. (Cory and Hamilton.)

ENT. 202. *Research in Entomology*—The year. Six to ten credits.

Advanced students having sufficient preparation may, with the approval of the head of the department, undertake supervised research in morphology, taxonomy or biology and control of insects. Frequently, the student may be allowed to work on Station or State Horticultural Department projects. The student's work may form a part of the final report on the project and be published in bulletin form. A report, suitable for publication, must be submitted at the close of the studies and the time and place of its publication will be determined by the professor in charge of the work. (Cory.)

FARM MANAGEMENT AND AGRICULTURAL ECONOMICS

Farm Management

F. M. 101. *Farm Accounting*—Second semester. Three credits. Two lectures and one laboratory period. Second semester open to juniors and seniors.

A concise practical course in the keeping of farm accounts and in determining the cost of farm production.

F. M. 102. *Farm Management*—First semester. Four credits. Four lectures.

The business of farming from the standpoint of the individual farmer. This course aims to connect the principles and practice which the student has acquired in the several technical courses and to apply them to the development of a successful farm business. Prerequisite, F. M. 101.

Agricultural Economics

A. E. 101. *Agricultural Economics*—First semester. Three credits. Three lectures or recitations. Prerequisite, Econ. 101.

A general course in Agricultural Economics, with special reference to population trend, agricultural wealth, land tenure, farm labor, agricultural credit, the tariff, price movements and marketing and co-operation.

A. E. 102. *The Marketing of Farm Products*—Second semester. Three credits. Three lectures or recitations. Open to juniors and seniors. Prerequisite, Econ. 101.

A complete analysis of the present system of transporting, storing and distributing farm products and a basis for intelligent direction of effort in increasing the efficiency of marketing methods.

A. E. 103. *Co-operation in Agriculture*—First semester. Three credits. Three lectures or recitations. Open to juniors and seniors. Prerequisite, Econ. 101.

Historical and comparative development of farmers' co-operative organizations, stressing particularly present tendencies.

A. E. 104. *Transportation of Farm Products*—Second semester. Three credits. Three lectures or recitations. Open to juniors and seniors.

A study of the development of transportation in the United States, the different agencies for transporting farm products, with special attention to such problems as tariffs, rate structure and the development of fast freight lines, refrigerator service, etc.

For Advanced Undergraduates and Graduates

A. E. 105. *Seminar in Marketing*—First semester. One to three credits. Open to seniors and graduate students.

This course will consist of special reports by students on subjects relating to the marketing of farm products, and a discussion and criticism of the same by the members of the class and the instructor. (DeVault.)

A. E. 106. *Seminar*—Second semester. One to three credits. Open to seniors and graduate students.

With the permission of the instructor, students will be permitted to work on any research problem in agricultural economics which they may choose, or a special list of subjects will be made up from which the students may select their research problems. There will be occasional class meetings for the purpose of reports on progress of work, methods of approach, etc. (DeVault.)

HORTICULTURE

Description of Courses

Pomology

HORT. 101. *Elementary Pomology*—First semester. Three credits. Two lectures and one laboratory period.

A general course in pomology. The proper location and site for an orchard are discussed. Varieties, planting plans, inter-crops, spraying, cultural methods, fertilizing methods, thinning, picking, packing and marketing are also given consideration. The subjects are discussed for apples, peaches, pears, plums, cherries and quinces. The principles of plant propagation as applied to pomology are discussed.

HORT. 102. *Commercial Fruit Growing*—First semester. Three credits. Two lectures and one laboratory period. Prerequisite, Hort. 101.

The proper management of commercial orchards in Maryland. Advanced work is taken up on the subject of orchard culture, orchard fertilization, picking, packing, marketing and storing of fruits, orchard by-products, orchard heating and orchard economics. Designed for undergraduate or graduate students.

HORT. 103. *Systematic Pomology*—First semester. Three credits. Two lectures and one laboratory period. Prerequisite, Hort. 101.

The history, botany and classification of fruits and their adaptation to Maryland conditions. Exercises are given in describing and identifying the leading commercial varieties of fruits. Students are required to help set up the fruit show each year. Designed for undergraduate or graduate students.

HORT. 104. *Advanced Practical Pomology*—First semester. One credit. Senior year. Prerequisites, Hort. 102 and 103.

A trip occupying one week's time will be made through the principle fruit regions of eastern West Virginia, Maryland and Pennsylvania. A visit to the fruit markets of several large cities will be made. The cost of this trip should not exceed thirty dollars to each student. Each student will be required to hand in a detailed report covering the trip. The time for taking this trip will be arranged yearly with each class.

HORT. 105. *Small Fruit Culture*—Second semester. Two credits. One lecture and one laboratory period.

The care and management of small fruit plantations. Varieties and their adaptation to Maryland soils and climate, packing, marketing, and a study of the experimental plots and varieties on the Station grounds. The following fruits are discussed: the grape, strawberry, blackberry, blackcap raspberry, red raspberry, currant, gooseberry, dewberry and loganberry.

HORT. 106. *Economic Fruits of the World*—Second semester. Two credits. Two lectures. Prerequisites, Hort. 102 and 103.

A study is made of the botanical, ecological and physiological characteristics of all species of fruit-bearing plants of economic importance, such as the date, pineapple, fig, olive, banana, nut bearing trees, citrus fruits, newly introduced fruits and the like, with special reference to their cultural requirements in certain parts of the United States and the insular possessions. All fruits are discussed in this course which have not been discussed in a previous course.

HORT. 107. *Fruits and Vegetable Judging*—First semester. Two credits. Two laboratory periods. Prerequisites, Hort. 101 and 111.

A course designed to train men for fruit judging teams and practical judging. Students are required to know at least one hundred varieties of fruit, and are given practice in judging single plates, largest and best collections, boxes, barrels and commercial exhibits of fruits and vegetables. Students are required to help set up the college horticultural show each year.

HORT. 108. *Advanced Fruit Judging*—First semester. One credit. One laboratory Period. Prerequisite, Hort. 107.

Olericulture

HORT. 111. *Principles of Vegetable Culture*—Second semester. Three credits. Two lectures and one laboratory.

A study of fundamental principles underlying all garden practices. Each student is given a small garden to plan, plant, cultivate, spray, fertilize, harvest, etc.

HORT. 112. *Tuber and Root Crops*—First semester. Two credits. One lecture and one laboratory period. Prerequisite, Hort. 111. Open to seniors and graduates.

A study of white potatoes and sweet potatoes, considering seed varieties, propagation, soils, fertilizers, planting, cultivation, spraying, harvesting, storing and marketing.

HORT. 113. *Truck Crop Production*—Second semester. Three credits. Two lectures and one laboratory period. Prerequisite Hort. 111.

A study of methods used in commercial vegetable production. Each individual crop is discussed in detail. Trips are made to large commercial gardens, various markets and other places of interest.

HORT. 114. *Systematic Olericulture*—First semester. Two credits. One lecture and one laboratory period. Prerequisites, Hort. 112 and 113.

A study of the classification and nomenclature of vegetables. Description of varieties and adaptation of varieties to different environmental conditions.

HORT. 115. *Advanced Truck Crop Production*—Second semester. Two credits. Prerequisites, Hort. 112, 113, and 114.

A trip of one week is made to the commercial trucking sections of Maryland, Delaware, New Jersey and Pennsylvania. A study of the markets in several large cities is included in this trip. Students are required to hand in a detailed report of the trip. Such a trip should not exceed thirty dollars per student. The time will be arranged each year with each class.

HORT. 116. *Vegetable Forcing*—Second semester. Three credits. Two lectures and one laboratory period. Prerequisite, Hort. 111.

All vegetables used for forcing are considered. Laboratory work in sterilization and preparation of soils, cultivation, regulation of temperature and humidity, watering, training, pruning, pollination and harvesting.

Floriculture

HORT. 121. *General Floriculture*—First semester. Two credits. One lecture and one laboratory period.

The management of greenhouse; the production and marketing of florists crops; retail methods; plants for house and garden.

HORT. 122. *Greenhouse Management*—The year. Six credits. Two lectures and one laboratory period.

A consideration of the methods employed in the management of greenhouses; including the operations of potting, watering, ventilating, fumigation and methods of propagation.

HORT. 123. *Floricultural Practice*—The year. Four credits. Two laboratory periods.

Practical experience in the various greenhouse operations of the fall, winter and spring seasons.

HORT. 124. *Greenhouse Construction*—Second semester. Two credits. One lecture and one laboratory period.

The various types of houses, their location, arrangement, construction, and cost; principles and methods of heating; preparation of plans and specifications for commercial and private ranges. This course is given every other year.

HORT. 125. *Commercial Floriculture*—The year. Six credits. Two lectures and one laboratory period. Prerequisite, Hort. 122.

Cultural methods of florists' bench crops and potted plants, the marketing of the cut flowers, the retail store, a study of floral decoration.

HORT. 126. *Garden Flowers*—First semester. Three credits. Two lectures and one laboratory period.

Plants for garden use; the various species of annuals, herbaceous perennials, bulbs, bedding plants and roses and their cultural requirements. This course is given every other year.

Landscape Gardening

HORT. 127. *General Landscape Gardening*—Second semester. Two credits. One lecture and one laboratory period.

The theory and general principles of landscape gardening and their application to private and public areas. Special consideration is given to the improvement and beautification of the grounds, farmsteads and small suburban properties. Adapted to students not intending to specialize in landscape, but who wish some theoretical and practical knowledge of the subject. Given every other year.

HORT. 128. *Plant Materials*—The year. Four credits. One lecture and one laboratory period.

A field and laboratory study of trees, shrubs and vines used in ornamental planting.

HORT. 129. *Elements of Landscape Design*—First semester. Three credits. One lecture and two laboratory periods. Prerequisite, Hort. 127.

A consideration of the principles of landscape design; surveys, mapping and field work.

HORT. 130. *Landscape Design*—The year. Six credits. Three laboratory periods. Prerequisite, Hort. 129.

The design of private grounds, gardens and of architectural details used in landscape, planting plans, analytical study of plans of practicing landscape architects; field observation of landscape developments.

HORT. 131. *History of Landscape Gardening*—Second semester. One credit. One lecture or laboratory period. Prerequisite, Hort. 129.

Evolution and development of landscape gardening; the different styles and a particular consideration of Italian, English and American gardens. Given every other year.

HORT. 132. *Civic Art*—First semester. Two credits. One lecture and one laboratory period. Prerequisite, Hort. 129.

Principles of city planning and their application to village and rural improvement, including problems in design of civic center, parks, school grounds and other public and semi-public areas. Given every other year.

General Horticultural Courses

HORT. 133. *Horticultural Breeding Practices*—Second semester. One credit. One laboratory period. Senior year. Prerequisites, Genetics, Plant Phys. 101.

Practice in plant breeding, including pollination, hybridization, selection, note taking, and the general application of the theories of heredity and selection to practice are taken up in this course.

HORT. 134. *Horticultural Research and Theses*—The year. Four to six credits.

Advanced students in any of the four divisions of horticulture may select some special problem for individual investigation. This may be either the summarizing of all the available knowledge on a particular problem or the investigation of some new problem. Where original investigation is carried on, students should in most cases start the work during the junior year. The results of the research work are to be presented in the form of a thesis and filed in the horticultural library.

HORT. 135. *Horticultural Seminar*—The year. Two credits.

In this course papers are read by members of the class upon subjects pertaining to their research or thesis work or upon special problems assigned them. Discussions of special topics are given from time to time by members of the departmental staff.

Courses Intended Primarily for Graduates

HORT. 201. *Experimental Pomology*—First semester. Three credits. Three lectures.

A systematic study of the sources of knowledge and opinion as to practices in pomology; methods of difficulties in experimental work in pomology and results of experiments that have been or are being conducted in all experiment stations in this and other countries. A limited number of seniors will be allowed to take this course, with the approval of the head of the department.

HORT. 202. *Experimental Olericulture*—Second semester. Two credits. Two lectures.

A systematic study of the sources of knowledge and opinion as to practices in vegetable growing; methods and difficulties in experimental work in vegetable production and results of experiments that have been, or are being conducted in all experiment stations in this and other countries. A limited number of seniors will be permitted to take this course with the approval of the head of the department.

HORT. 203. *Experimental Floriculture*—Second semester. Two credits. Two lectures.

A systematic study of the sources of knowledge and opinions as to practices in floriculture are discussed in this course. The results of all experimental work in floriculture which have been, or are being conducted, will be thoroughly discussed. A limited number of seniors will be permitted to take this course with the approval of the head of the department.

HORT. 204. *Methods of Research*—Second semester. Two credits. One lecture and one laboratory period.

For graduate students only. Special drill will be given in the making of briefs and outlines of research problems, in methods of procedure in conducting investigational work, and in the preparation of bulletins and reports. A study of the origin, development and growth of horticultural research is taken up. A study of the research problems being conducted by the Department of Horticulture will be made, and students will be required to take notes on some of the experimental work in the field and become familiar with the manner of filing and cataloging all experimental work.

HORT. 205. *Advanced Horticultural Research and Thesis*—The year. Four, six or eight credits.

Graduate students will be required to select problems for original research in either pomology, vegetable gardening, floriculture or landscape gardening. These problems will be continued until completed and final results are to be published in the form of a thesis.

HORT. 206. *Advanced Horticultural Seminar*—The year. Two credits.

This course will be required of all graduate students. Students will be required to give reports either on special topics assigned them, or on the progress of their work being done in courses, 205 and 206. Members of the departmental staff will report special research work from time to time.

Requirements of Graduate Students in Horticulture

Pomology—Graduate students specializing in Pomology who are planning to take an advanced degree will be required to take or offer the equivalent of the following courses: Hort. 102, 103, 106, 201, 204, 205 and 206; Physiological Chemistry 101; Plant Bio-physics 201; Bio-chemistry 102; and Organic Chemistry ()

Olericulture—Graduate students specializing in vegetable gardening, who are planning to take an advanced degree, will be required either to take or offer the equivalent of the following courses: Hort. 113, 114, 202, 204, 205 and 206; physiological chemistry 101; plant bio-physics 201; bio-chemistry 102; and org. chem. 102.

Floriculture—Graduate students specializing in floriculture who are planning to take an advanced degree will be required either to take or offer the equivalent of the following courses: Hort. 122, 123, 124, 125,

126, 128, 129, 203, 204, 205 and 206; physiological chemistry 101; plant bio-physics 201; bio-chemistry 102; botany 103, and organic chemistry.

Landscape Gardening—Graduate students specializing in landscape gardening, who are planning to take an advanced degree, will be required either to take or offer the equivalent of the following courses: Hort. 128, 129, 130, 132, 204, 205 and 206; Bot. 103; Drawing 101-102; and Surveying 101 and 102.

Additional Requirements—In addition to the above required courses, all graduate students in horticulture are advised to take physical and colloidal chemistry.

Unless graduate students in horticulture have had some course work in entomology, plant pathology and genetics certain of these courses will be required.

PLANT PATHOLOGY

PLT. PATH. 101. *Diseases of Plants*—First semester. Three credits. Two lectures and one laboratory period. Prerequisite, gen. bot. 101.

An introductory study in the field, in the laboratory and in the literature, of symptoms, casual organisms and control measures of the diseases of economic crops.

PLT. PATH. 102. *Forest Pathology*—Second semester. One credit. One lecture and an occasional field trip or laboratory period.

The diseases of forest trees of economic importance. Intended especially for students in forestry.

For Advanced Undergraduates and Graduates

PLT. PATH. 103. *Methods and Problems in Plant Pathology*—The year. Credit to be arranged. Prerequisite, Plt. Path. 101.

Technique in plant disease investigations: A survey of the literature on the subject; practice in the use of pathological equipment and in the making of culture media, isolations and inoculations; preparation of a manuscript for publication or for a thesis. Work in this course may be begun and it may be ended any time during the calendar year. Register only after consultation with the instructor in charge. (Temple.)

PLT. PATH. 104. *Advanced Plant Pathology*—The year. Six credits. Prerequisite, Plt. Path. 101.

An intensive study: First semester, diseases of fruits; second semester, diseases of garden and field crops. The full course is intended to give a rather thorough knowledge of the subject matter, such as is needed by those who expect to become advisers in crop-production as well as those who expect to become specialists in plant pathology. The project method of study is used; the student is assigned several subjects closely related to his major interest, he consults the original papers on each subject, organizes the information and presents it as a complete report before the class. (Temple.)

PLT. PATH. 105. *Seminar*—The year. Two credits.
Conferences and reports on plant pathological literature and on recent investigations. (Temple.)

For Graduates

PLT. PATH. 201. *Research*—Credit according to the work done.
Original investigations of special problems. (Temple.)

PLANT PHYSIOLOGY AND BIO-CHEMISTRY

PLT. PHY. 101. *Plant Physiology*—First semester. Four credits. Two lectures and two laboratory periods. Prerequisite Gen. Bot. 101.

Water requirements, principles of absorption, mineral nutrients, transpiration, synthesis of food, metabolism, growth and movements.

PLT. PHY. 102. *Plant Ecology*—Second semester. Three credits. One lecture and two laboratory periods. Prerequisite. Bot. 101.

The study of plants in relation to their environments. Plant formations and successions in various parts of the country are briefly treated. Much of the work, especially the practical, must be carried on in the field and for this purpose type regions adjacent to the University are selected.

For Advanced Undergraduates and Graduates

PLT. PHY. 103. *Advanced Plant Physiology*—The year. Four credits. Two lectures and two laboratory periods. Prerequisite, Plt. Phy. 101.

The laboratory work generally consists of special work on one or more problems that may continue through the year. Students who write theses for their undergraduate degrees, may use data obtained from special problems assigned for laboratory work. (Zimmerman.)

BIO-CHEM. 101. *General Bio-Chemistry*—First semester. Four credits. Two lectures and two laboratory periods. Prerequisites, Gen'l Chem. 101, Org. Chem. 103 or their equivalents; also an elementary knowledge of organic chemistry.

A general course in chemical biology treated from the point of view of both animals and plants. The first half of the course is devoted to the chemistry of protoplasm and its products. The second half of the course deals with cell metabolism and embraces processes and problems of fundamental importance in both animal and plant life.

For Graduates

PLT. PHYS. 201. *Plant Bio-Chemistry*—Second semester. Three credits. Two lectures and one laboratory period. Prerequisites, Bio-Chem. 101 and an elementary knowledge of plant physiology.

An advanced course on the chemistry of plant life. It follows Bio-Chem. 101 and deals with materials and processes characteristic of plant life. The relation of primary syntheses and transformations of materials in plants and plant organs to animal food is especially emphasized. (Appleman, Conrad.)

PLT. PHYS. 202. *Plant Bio-Physics*—Second semester. Three credits. Two lectures and one laboratory period. Prerequisites, one year's work in physics and an elementary knowledge of physical chemistry and plant physiology.

An advanced study of the operation of physical forces in plant physiological processes. The relation of climatic conditions to plant growth and practice in recording meteorological data constitute a part of the course. (Johnston.)

PLT. PHYS. 203. *Special Problems in Growth and Reproduction*—Second semester. One or two credits. (Appleman, Johnston.)

PLT. PHYS. 204. *Advanced Physiological Methods and Measurements*—First semester. Two credits. Not given every year. (Appleman, Johnston.)

PLT. PHYS. 205. *Seminar*—The year. Two credits.

The students are required to prepare reports of papers in the current literature. These are discussed in connection with the recent advances in the subject. (Appleman, Johnston.)

PLT. PHYS. 207. *Research*—The year. Credit hours according to work done.

Students must be specially qualified by previous work to pursue with profit the research to be undertaken. (Appleman, Johnston.)

POULTRY HUSBANDRY

POULTRY 101. *Farm Poultry*—Second semester. Three credits. Two lectures and one laboratory period.

A general course in poultry raising including housing, feeding, incubation, brooding, breeds, breeding, selection of stock, culling, general management and marketing.

POULTRY 102. *Poultry Keeping*—First semester. Four credits. Two lectures and two laboratory periods. Prerequisite, Poultry 101.

A study of housing and yarding, practice in making poultry house plans, feeding, killing and dressing.

POULTRY 103. *Poultry Production*—Second semester. Four credits. Two lectures and two laboratory periods. Prerequisite, Poultry 101 and 102.

The theory and practice of incubation and brooding, both natural and artificial. Study of incubators and brooders, assembling, etc. Considerable stress will be placed on the proper growing of chicks into good laying pullets. General consideration of poultry disease. Caponizing.

POULTRY 104. *Poultry Breeds*—First semester. Four credits. Two lectures and two laboratory periods. Prerequisite, Poultry 101, 102 and 103.

A study of the breeds of poultry, the judging of poultry, fitting for exhibition and the methods of improvement by breeding.

POULTRY 105. *Poultry Management*—Second semester. Four credits. Two lectures and two laboratory periods. Prerequisites, Poultry 101, 102, 103 and 104.

A general fitting together and assembling of knowledge gained in the previous courses. Culling, marketing, including both selling of poultry products and the buying of supplies, keeping poultry accounts, a study of poultry profits, how to start.

SOILS

Description of Courses

SOILS 100. *Geology*—First semester. Three credits. Two lectures and one laboratory period.

A text-book, lecture and laboratory course, dealing with the principles of geology and their application to agriculture. While this course is designed primarily for agricultural students in preparation for technical courses, it may also be taken as part of a liberal education.

SOILS 101. *Principles of Soil Management*—Second semester. Four credits. Two lectures, one quiz and one laboratory period. Prerequisite, Soils 100.

A study of the physical, chemical and biological principles underlying the formation and management of soils. The relation of mechanical composition, classification, moisture, temperature, air, organic matter and tillage are considered. The use and value of commercial plant nutrients, green and stable manure and of lime are discussed.

SOILS 102. *Fertilizers and Manures*—First semester. Three credits. Two lectures and one laboratory period. Prerequisite, Soils 100-101.

This course includes a study of the nature, properties and use of fertilizers; the source and composition of fertilizer materials and the principles underlying the mixing of commercial plant-food. A study is made of the production, value and uses of animal and vegetable manures. The practical work includes special studies of the effect of fertilizers and manures on the crop-producing power of the various soil types.

SOILS 103. *Soil Fertility*—Second semester. Three credits. Two lectures and one laboratory period. Prerequisite, Soils 100, 101 and 102.

A study of the soil fertility systems of the United States, with special emphasis on the inter-relation of total to available plant food, the balance of nutrients in the soil with reference to various cropping systems and the economic and national aspect of permanent soil improvement. The practical work includes a resume of the important fertility studies and laboratory and greenhouse practice in soil improvement.

SOILS 105. *Soil Surveying and Classifications*—Second semester. Three credits. One lecture and two laboratory periods. Prerequisite, Soils 100 and 101.

A study of the principal soil regions, series and types of the United States, and especially of the soils of Maryland, as to formation, composition and value agriculturally. The practical work includes a field survey, identification of soil types and map making.

SOILS 107. *Soil Micro-Biology*—Second semester. Three credits. Two lectures and one laboratory period. Prerequisite, Bact. 101.

A study of the micro-organisms of the soil in relation to fertility. It includes the study of the bacteria of the soil concerned in the decomposition of organic matter, nitrogen fixation, nitrification, sulphofication and such injurious organisms as fungi, algae and protozoa.

SOILS 108. *Thesis*—The year. Four to eight credits.

Some special problem is assigned to each student, who is expected to embody the results of the investigation in a thesis.

For Advanced Undergraduate and Graduate Students

SOILS 109. *Soil Technology*—The year. Six credits. One lecture and two laboratory periods. Prerequisites, Soils 100 and 101; Chemistry 101-103.

The technique of the field, laboratory and greenhouse manipulation as applied to the study of soil problems. (McCall, Smith.)

SOILS 110. *Methods of Soil Investigation*—First semester. Two credits.

The course includes a critical study of the methods used by experiment stations in soil investigation work (McCall.)

SOILS 111. *Seminar*—The year. Two credits.

The seminar periods are devoted largely to the discussion of the current bulletins and scientific papers on soil topics. (McCall.)

For Graduate Students

SOILS 201. *Special Problems and Research*—The year. Ten to twenty credits.

Original investigation of problems in soils and fertilizers. (McCall.)

College of Arts and Sciences

The College of Arts and Sciences provides four years of liberal training in biological sciences, economics and business administration, history, languages and literature, mathematics, philosophy, physical sciences, political science, psychology and sociology. It thus affords the student an opportunity to acquire a general education which shall serve as a foundation for success in whatever profession or vocation he may choose. It particularly prepares the way and lays the foundation for the learned professions of law, medicine, theology, teaching and even for the more technical professions of engineering, public health service and business administration.

This College is an outgrowth of the Division of Language and Literature of Maryland State College and later of the School of Liberal Arts of the University. In 1921 the School of Liberal Arts and the School of Chemistry were combined and other physical and biological sciences were brought into the newly formed College of Arts and Sciences, thus making it a thoroughly standardized Arts and Science College. In 1922-1923 the scope and program of the various groups and departments of the College were extensively reorganized in order to broaden and amplify the courses of instruction offered.

Requirements for Admission

The requirements for admission to the College of Arts and Sciences are in general the same as those for admission to any college or school of the University. At least fifteen units of high school or other secondary school work in acceptable subjects must be offered by every candidate for admission, among which the following are prescribed:*

English	3
Mathematics	2
Science	1
History	1
Total	7

Two years of any one foreign language are required in addition to the above units for admission to the pre-medical curriculum.

Credentials and all correspondence relating to admission to the College of Arts and Sciences should be addressed to the Registrar, University of Maryland.

*Students entering with conditions must remove such conditions before enrolling for a second year in this college.

Degrees

The degrees conferred upon students who have met the prescribed conditions for a degree in the College of Arts and Sciences are:

Bachelor of Arts.
Bachelor of Science.

Departments Offering Courses in the College

Courses of instruction are offered in the following Groups and Departments:

Groups	Departments
I. Biological Sciences:	Bacteriology* Botany Entomology* Zoology and Aquiculture
II. Classical Languages and Literatures:	Greek Latin
III. English:	English Language and Literature Journalism Public Speaking
IV. History and the Social Sciences:	Economics and Business Administration History Political Science Sociology
V. Mathematics:	Mathematics
VI. Modern Languages:	Germanic Languages and Literatures Hispanic Languages and Literature Romance Languages and Literature
VII. Philosophy:	Philosophy and Psychology
VIII. Physical Sciences:	Chemistry Geology and Mineralogy Physics
IX. Pre-Medical:	Pre-Medical Curriculum
X. Miscellaneous and Work from other Colleges:	Home Economics Education Library Science Military Science Music Physical Education

*These Departments are not physically within the College of Arts and Sciences but the courses offered by them are open to students of this College.

Credit Hours

The semester credit hour represents one lecture or recitation hour per week throughout the semester. Two or three hours of laboratory or field work are counted as equivalent to one lecture or recitation. For each credit hour in any course the student is expected to devote himself for three hours either in the classroom or laboratory, or in outside preparation.

Major and Minor Requirements

(a) A major shall consist of not less than 45 and of not more than 60 credit hours in Group I to VIII. Students majoring in Group II may count not to exceed fifteen credit hours in Modern Languages as part of their major requirements; and students majoring in Groups III or VI may count not to exceed ten credit hours in Classical Languages as part of their Major requirements.

(b) A minor shall consist of not less than 20 and of not more than 30 credit hours in a group related to the major group. Any hours taken in excess of this maximum in the minor group will not count as credit hours toward a degree.

(c) At the beginning of his Junior year each student must select a major in one of Groups I to VIII, and before graduation must complete one major and one minor. In certain exceptional cases two minors may be allowed but in no case will any hours above the maximum of 30 in either minor be counted for credit toward a degree.

(d) The courses constituting a major must be chosen under the supervision of the faculty of the department in which the majority of the work is done and must include a substantial number of courses not open to freshmen and sophomores.

Requirements for the Degree of Bachelor of Arts or Bachelor of Science

The Bachelor of Arts degree may be conferred upon students who have completed majors in Groups II, III, IV, V, VI or VII and minors in cognate groups. The Bachelor of Science degree may be conferred upon students who have completed majors in Groups I, IV, V, or VIII and minors in related groups.

The baccalaureate degree from the College of Arts and Sciences may be conferred upon a student who has satisfied all entrance requirements and has secured credit for a minimum of 129 credit hours including eight hours of military science for all able-bodied men students and eight hours of physical education for all women students and one hour of library science for all students, except for students taking the special curricula in chemistry in which there are special requirements.

Scholarship Requirements

In conformity with the University policy not less than three-fourths of the credits required for graduation must be earned with grades of A, B, or C.

Normal Load

The normal load for the Freshman year will be eighteen hours for the first semester, including one hour of library science and two hours of military science or physical education, and seventeen hours for the second semester and throughout the Sophomore year, two hours of which shall be military science or physical education.

The normal load for the Junior and Senior years will be fifteen hours per week.

Students will not be allowed to enroll for more nor less than the normal load without the consent of the Dean.

Absolute Maximum

Students whose average grade for the preceding year is a straight B or above may be permitted to take additional hours for credit with the approval of the Dean, but in no case shall the absolute maximum of 19 hours per week be exceeded. In the majority of cases it is better for the student to put in four full years in meeting the requirements for a degree than to try to cover the course in a shorter period by taking additional hours.

Prescribed Curricula

The work of the Freshman and Sophomore years of the College of Arts and Sciences has been co-ordinated as follows for all students other than those taking prescribed curricula in the Chemistry Department and in the Pre-Medical Group.

Curriculum	Semester	I	II
FRESHMAN YEAR			
Composition and Rhetoric (Eng. 101).....		3	3
Basic R. O. T. C. (M. I. 101) or Physical Education (Phys. Ed. 101).....		2	2
Reading and Speaking (P. S. 101-102).....		1	1
Foreign Language (Fren. 1; Fren. 101; Germ. 1; Germ. 101; Gk. 1; Gk. 101; Lat. 1; Lat. 101; Span. 1; Span. 101.)		4	4
Library Science (Lib.S.101).....		1	
(One of these)			
Modern and Contemporary History (H. 101).....		3	3
Elements of Literature (Eng. 102).....		3	3
*Mathematics (Mat. 101).....			
(One of these)			
General Botany (Bot. 101) Either Semester.....		4	4
General Zoology (Zool. 101) Either Semester.....		4	4
*Inorganic Chemistry (Chem. 101 A or 101 B).....		4	4
TOTAL HOURS		18	17

*Freshmen students intending to follow the Special Curricula in Chemistry are required to take both Mathematics 101 and Chemistry 101 during the Freshman year. Students expecting to take Arts Physics 101 in their Sophomore year are required to take Mathematics 101 during the Freshman year.

SOPHOMORE YEAR

	Semester	I	II
Basic R. O. T. C. (M. I. 102) or Physical Education (Phys. Ed. 102)		2	2
Advanced Public Speaking (P. S. 103)		2	
Debate (P. S. 118) or Machine Shop (101) or Determinative Mineralogy (Anal. Chem. 104) or Economic History of the United States (Econ. 102) (One of these)			2
Elements of Social Science (Soc. Sci. 101)	2	2	
American History (Hist. 102-103)	2	2	
Elements of Psychology (Psych. 101)	2	2	
Geography of Commerce (Econ. 103)	2		2
Economic Resources of the World (Econ. 104)			2
(One of these)			
English (One three hour course)	3	3	
Mathematics (Math. 101) or Analytic Geometry and Calculus (Math. 105)	3	3	
Modern and Contemporary History (H. 101)	3	3	
Advanced Foreign Language (One course)	3	3	
(Two of these)			
Foreign Language (One four hour course)	4	4	
General Zoology (Zool. 101) Either semester or	4	4	
Advanced Zoology (Course Totaling four hours)	4	4	
General Botany (Bot. 101) Either Semester	4	4	
Inorganic Chemistry (Chem. 101-A or 101-B) or	4	4	
Advanced Chemistry Courses	4	4	
Geology (Geol. 104) Either Semester	4	4	
**Arts Physics (Phys. 101)	4	4	
General Entomology (Ent. 101)			3
Government of the United States (Pol. Sci. 102)			4
General Economics (Econ. 105)			4
TOTAL HOURS		17	17

Regulations Governing the Selection of Courses

The selection of courses in the above schedule must be within certain limits in order to insure against too early specialization and to provide for a broad foundation before a major is selected.

Freshman-Sophomore Requirements

(a) Before the beginning of the Junior year the student must have completed sixty credit hours in basic courses, at least four or five hours of which must be taken from each of six of the first eight groups.

**Prerequisite, Math. 101.

(b) Not more than twenty of these hours may be taken in one department.

(c) Freshmen and sophomores may not carry more than twelve hours in one group at a time.

Junior-Senior Requirements

The work in the Junior and Senior years will be elective within the limits set by the Major and Minor requirements.

Students With Advanced Standing

Students entering the Junior year of the College of Arts and Sciences with advanced standing from other universities or from other colleges of this university will be required to meet the requirements respecting studies of the first two years only to the extent of their deficiencies in credits in Arts and Science subjects for full junior standing.

Credit for Professional Courses

A limited number of courses may be counted for credit in the College of Arts and Sciences for work done in professional schools or for courses of a professional character in other colleges of the University.

Student Responsibility

The individual student will be held responsible for the selection of his courses and major in conformity with the preceding regulations.

Advisers

Each new student is assigned to a member of the faculty as his personal adviser who will assist him in the selection of his courses, the arrangement of his schedule, and any other matters on which he may need assistance or advice. The faculty adviser acts in this capacity as assistant and representative of the Dean, who is charged with the execution of all of the foregoing rules and regulations.

GROUPS AND DEPARTMENTS

GROUP I. BIOLOGICAL SCIENCES

BACTERIOLOGY AND SANITATION

The purposes of this department are to give all of the students of the University an opportunity to obtain a general knowledge of the subject of bacteriology and to fit certain students for positions along bacteriological lines in the field of bacteriological research and public health service. For description of Courses see pages 64, 65.

BOTANY

This Department aims to give a general introduction to the field of botany and to afford ample opportunities for the prosecution of research for qualified students in advanced courses in this field.

Description of Courses

For Undergraduates

GEN. BOT. 101. *General Botany*—First or second semester. Four credits. Two lectures and two laboratory periods.

General introduction to botany, touching briefly on all phases of the subject and planned to give the fundamental prerequisites for study in the special departments.

GEN. BOT. 102. *Systematic Botany*—Second semester. Two credits. One lecture and one laboratory period. Prerequisite, Gen. Bot. 101.

A study of the local flora. A study is made of floral parts and the essential relations between the groups of flowering plants. Students become familiar with the systematic key used to identify plants.

GEN. BOT. 103. *Mycology*—Second semester. Two credits. One lecture and one laboratory period.

Introductory comparative study of the morphology, life history and classification of economic fungi.

For Advanced Undergraduates and Graduates

GEN. BOT. 104. *Methods in Plant Histology*—First semester. Three credits. One lecture and two laboratory periods. Prerequisite, Gen. Bot. 101.

Primarily a study in technique. It includes methods of killing, fixing, imbedding, sectioning, straining and mounting on slides of plant materials.

GEN. BOT. 105. *Advanced Taxonomy*—First or second semester. Three credits. One lecture and two laboratory periods. Prerequisite, Gen. Bot. 101.

The course is offered for students who want more proficiency in systematic botany than the elementary course affords. A student who completes the course should be able to classify the grasses and other common plants of the state.

GEN. BOT. 106. *Advanced Mycology*—First or second semester. Two credits. One lecture and one laboratory period. Prerequisite, Gen. Bot. 101 and Bact. 101.

A detailed treatment of the classification, morphology and economics of the fungi, with studies of life histories in culture and identification of field materials.

For Graduates

GEN. BOT. 202. *Special Studies of Fungi*—Credit hours according to work done. Prerequisite, Gen. Bot. 103 or 106.

Special problems in the structure or life history of fungi or the monographic study of some group of fungi.

GEN. BOT. 203. *Aquatic Plants*—Credit hours according to work done. Prerequisite, Gen. Bot. 101.

Taxonomy, distribution, life history and economics of algae and other plants of Maryland waters.

GEN. BOT. 204. *Special Plant Taxonomy*—Credit hours according to work done. Prerequisite, Gen. Bot. 105.

Original studies in the taxonomy on some group of plants.

ENTOMOLOGY

This department offers an opportunity for a general study of the structure, life and classification of insects, with special reference to economically important forms, and to the problems of economic entomology. An extensive list of courses in entomology and bee culture will be found listed under the College of Agriculture.

For description of Courses, see pages 51, 52.

ZOOLOGY AND AQUICULTURE

This department affords an opportunity to acquire a fundamental knowledge of animal life; the relation of animals to man and their various relations to plant life; and the effects of these relationships on the development of civilization. It furnishes the necessary biological training for pre-medical students and for teachers of biology and zoology. It is designed to satisfy the requirements of those students who study zoology and aquiculture as a necessary complement of a liberal education.

Description of Courses

For Undergraduates

ZOOL. 101. *General Zoology*—First or second semester. Two credits. Two lectures. Must be taken concurrently with Zool. 101a.

This course presents the fundamental principles of animal biology that constitute the foundation which is necessary for further study in any line of biology; and develops those concepts of animal life which are an essential part of a liberal education.

ZOOL. 101a. *General Zoology*—First or second semester. Two credits. Two laboratory periods. Must be taken concurrently with Zool. 101.

ZOOL. 102. *General Zoology for Pre-Medical Students*—First semester. Two credits. Two lectures. Must be taken concurrently with Zool. 102a.

ZOOL. 102a. *General Zoology for Pre-Medical Students*—First semester. Two credits. Two laboratory periods. Must be taken concurrently with Zool. 102.

ZOOL. 103. *General Zoology for Pre-Medical Students*—Second semester. Two credits. Two lectures. Must be taken concurrently with Zool. 103a. A continuation of Zool. 102.

ZOOL. 103a. *General Zoology for Pre-Medical Students*—Second semester. Two credits. Two laboratory periods. Must be taken concurrently with Zool. 103. A continuation of Zool. 102a.

ZOOL. 106. *Field Zoology*—Second semester. Three credits. One lecture and two laboratory periods.

This course consists in collecting and studying both land and aquatic forms of nearby woods, fields and streams with special emphasis placed upon insects, fishes, frogs, reptiles, birds and rodents, their breeding habits, environment and economic importance.

ZOOL. 108. *Comparative Vertebrate Morphology*—First semester. Three credits. One lecture and two laboratory periods. Prerequisite, Zool. 101, 101a, or Zool. 106.

ZOOL. 112. *Normal Animal Histology*—First or second semester. Three credits. One lecture and two laboratory periods. Prerequisite, Zool. 101, 101a.

Instruction in the simplest processes of technique will accompany the study of prepared material.

ZOOL. 116. *Advanced Comparative Vertebrate Morphology*—Second semester. Two credits. Schedule to be arranged. Prerequisite, Zool. 108 or its equivalent.

This is a continuation of Zool. 108, but will consist of laboratory work only.

For Advanced Undergraduates and Graduates

ZOOL. 120. *Embryology*—First semester. Four credits. Two lectures and two laboratory periods. Prerequisites, two semesters of biology, one of which should be Zool. 101 and 101a, or 102 and 102a.

This course covers the development of the chick to the end of the fourth day. (Pierson, Anderson.)

ZOOL. 125. *Aquiculture*—Credit hours, lectures and laboratory to be arranged. Prerequisites, Zool. 101, 101a, 108, 120 and Bot. 101.

Plankton studies and the determination of other aquatic life of nearby streams and ponds. Morphology and ecology of representative commercial and game fishes in Maryland, the Chesapeake blue crab and the oyster. (Truitt.)

ZOOL. 130. *Organic Evolution*—Second semester. Two credits. Two lectures. Prerequisites, two semesters of biological science, one of which must be either Zool. 101 and 101a or Zool. 106.

The object of this course is to present the biological data upon which rest the theories of evolution. The lectures will be supplemented by discussion, reports and collateral reading. Enrollment limited to fifteen. (Pierson.)

ZOOL. 135. *Vertebrate Zoology*—Second semester. Credit hours and schedule to be arranged to suit the individual members of the class.

Each student may choose within certain limits, work in his own special field. (Pierson.)

GROUP II. CLASSICAL LANGUAGES AND LITERATURES

The departments under this group offer a cultural and liberal training in classical languages and literatures.

Description of Courses

CLASSICAL LITERATURE

For Undergraduates

C. L. 101. *Ancient Civilization*—First semester. Three credits. Three lectures or recitations.

Treatment of ancient times including Geography, Mythology and Philosophy.

GREEK

For Undergraduates

GK. 1. *Beginners' Greek*—The year. Eight credits. Four lectures or recitations each semester.

Drill and practice in the fundamentals of Greek grammar and the acquisition of a vocabulary.

GK. 101. *Greek Grammar, Composition and Translation of Selected Prose Works*—The year. Eight credits. Four lectures or recitations each semester. Prerequisite, Gk. 1, or two entrance units in Greek.

LATIN

For Undergraduates

LAT. 1. *Elementary Latin*—The year. Eight credits. Four lectures or recitations each semester.

This course is offered to cover a substantial and accurate course in grammar and syntax with translation of simple prose.

LAT. 2. *Translation and Prose Composition*—The year. Eight credits. Four lectures or recitations each semester. Prerequisite, Lat. 1. or its equivalent.

Texts will be selected from the works of Caesar and Sallust.

LAT. 101. First semester. Four credits. Four lectures or recitations. Prerequisite, Lat. 2, or two entrance units in Latin.

Texts will be selected from Virgil with drill on prosody.

LAT. 102. Second semester. Four credits. Four lectures or recitations. Prerequisite, Lat. 2, or three entrance units in Latin.

Selections from Cicero's orations with parallel reading of the world's masterpieces of oratory.

LAT. 103. First semester. Three credits. Three lectures or recitations. Prerequisite, Lat. 101 and 102.

Histories of Livy with parallel reading of Napoleon's campaign in Italy.

LAT. 104. Second semester. Three credits. Three lectures or recitations. Prerequisite, Lat. 101 and 102.

Odes and Epodes of Horace with appropriate study of prosody.

For Advanced Undergraduates and Graduates

LAT. 105. First semester. Three credits. Three lectures or recitations. Prerequisite, Lat. 101 and 102.

The writings of Tacitus. (Spence.)

LAT. 106. Second semester. Three credits. Three lectures or recitations. Prerequisite, Lat. 101 and 102.

Selected Plays of Terence and Plautus. (Spence.)

LAT. 107. First semester. Three credits. Three lectures or recitations. Prerequisite, Lat. 101 and 102.

Satires of Juvenal and Horace. (Spence.)

LAT. 108. *Classical Literature*—Second semester. Three credits. Three lectures or recitations. Knowledge of Greek or Latin desirable but not essential.

Study and criticism of translations of the classics, biographies of classic authors. (Spence.)

GROUP III. ENGLISH

ENGLISH LANGUAGE AND LITERATURE

The introductory course in composition and rhetoric is required of all students of the University who are candidates for a degree. The instruction in this department is designed to give a fundamental and thorough training in English language and literature.

Description of Courses

For Undergraduates

ENG. 101. *Composition and Rhetoric*—The year. Six credits. Three lectures each semester. Freshman year. Prerequisite, three units of high school English. Required of all four-year students.

Parts, principles, and conventions of effective thought communication. Reading, study, and analysis of standard contemporary prose specimens. Short papers and term themes.

ENG. 102. *Elements of Literature*—The year. Six credits. Three lectures each semester. Freshman year. Prerequisite, three units of high school English.

Lectures on the principles of literary form. Study and interpretation of selected English and American classics.

ENG. 103. *Advanced Composition and Rhetoric*—First semester. Two credits. Two lectures. Prerequisite, Eng. 101. Optional with Eng. 105-106 as a requirement for all students whose major is English.

Lectures on principles of composition. Study and analysis of the best scientific essays. Practice in expository writing. Term themes and monographs.

ENG. 104. *Advanced Composition and Rhetoric*—Second semester. Two credits.

Continuation of Eng. 103. Prerequisite, Eng. 103.

ENG. 105. *Expository Writing*—First semester. Two credits. Two lectures. Prerequisite, Eng. 101. Optional with Eng. 103-104 as a requirement for all students whose major is English.

Lectures on the principles of expository writing. The main objective of the course is to direct the student's efforts in analysing, interpreting, and preparing material bearing upon scientific matter. Themes, papers, and reports.

ENG. 106. *Expository Writing*—Second semester. Two credits.

Continuation of Eng. 105. Prerequisite, Eng. 105.

ENG. 107. *History of English Literature*—First semester. Three credits. Three lectures. Prerequisite, Eng. 101. Required of all students whose major is English.

A general survey, with extensive reading and class papers.

ENG. 108. *History of English Literature*—Second semester. Three credits.

Continuation of Eng. 107. Prerequisite Eng. 101.

ENG. 109. *American Literature* (by types)—First semester. Three credits. Three lectures. Prerequisite, Junior standing.

Lectures on the development of American literary types. Reports on assigned topics. Term themes. Special attention will be paid to the growth in America of lyric poetry, epic poetry, the drama, the ballad, the historical account, oration, biography, letters, essays, novel, and short story.

ENG. 110. *American Literature*—Second semester. Three credits.

Continuation of Eng. 109. Prerequisite, Junior standing.

ENG. 111. *Modern Poets*—First semester. Three credits. Three lectures. Prerequisite, Eng. 101.

English and American poets of the latter part of the Nineteenth and of the Twentieth Century. Intensive study of the shorter poems of Robert Browning.

ENG. 112. *Modern Poets*—Second semester. Three credits.

Continuation of Eng. 111. Prerequisite, Eng. 101.

ENG. 113. *The Drama*—First semester. Three credits. Three lectures. Prerequisite, Junior standing.

The work of the first semester will be devoted to a survey of the best and most successful plays in the history and development of the dramatic art in England and America. Lyly, Marlowe, Dekker, Heywood, Beaumont, Fletcher, Jonson, Webster, Middleton, Rowley, Dryden, Otway,

Congreve, Addison, Steele, Fielding, Goldsmith, Sheridan, Shelly, Bulwer-Lytton, Godfrey, Tyler, Dunlop, Barker, Payne, Irving, Smith, Bird, Willis, Ritchie, Baker, Howe, Boucicault, Jefferson, Howard, Gillette, Belasco, Long, Sheldon, and Crothers. Lectures, Reports, and Term themes. Not given in 1923-1924.

ENG. 114. *The Drama*—Second semester. Three credits. Continuation of Eng. 113. Prerequisite, Junior standing.

The second semester will include the plays of modern dramatists: Wilde, Moody, Mackaye, Bennett, Shaw, Knoblock, Maugham, Drinkwater, Ervine, Dunsany, Walter, Peabody, Hazelton, Barrie, O'Brien, Tarkington, and Molnar. Not given in 1923-1924.

ENG. 115. *Shakespeare*—First semester. Three credits. Three lectures. Prerequisite, Eng. 101.

An intensive study of selected plays.

ENG. 116. *Shakespeare*—Second semester. Three credits.

Continuation of Eng. 115. Prerequisite, Eng. 101.

ENG. 117. *Business English*—First semester. Two credits. Two lectures. Prerequisite, Eng. 101.

This course develops the best methods of effective expression, both oral and written, used in business relations. The application of these methods includes correspondence, advertising, and salesmanship, and is based upon a psychological attitude toward the subject.

ENG. 118. *Business English*—Second semester. Two credits.

Continuation of Eng. 117. Prerequisites, Eng. 101 and 117.

For Advanced Undergraduates and Graduates

ENG. 119. *Anglo-Saxon and Middle English*—The year. Six credits. Three lectures each semester. Prerequisite, some knowledge of Latin and German. Required of all students whose major is English.

A study of Anglo-Saxon (Old English) grammar and literature. Lectures on the principles of comparative philology and phonetics. Beowulf through 1500 lines. The language and authorship of the Middle English period, ending with Chaucer. (House.)

ENG. 120. *Aesthetics of Literature and the other Arts*—First semester. Two credits. Two lectures.

A philosophical approach to the criticism of literature, based upon Aristotle's Poetics and Longinus on the Sublime. The study of the basic structural principles of the various forms of literature will be supplemented by those principles governing all good art. (Johnson.)

ENG. 121. *Aesthetics of Literature and the Other Arts*—Second semester. Two credits. Continuation of Eng. 120. Prerequisite, Eng. 120.

ENG. 122. *The Novel*—First semester. Two credits. Two lectures.

Lectures on the principles of narrative structure and style. Class reviews of selected novels, chiefly from English and American sources. Some account of the history of the development of English fiction. Not given in 1923-1924. (House.)

ENG. 123. *The Novel*—Second semester. Two credits. Continuation of Eng. 122. Not given in 1923-24. (House.)

ENG. 124. *English and American Essays*—First semester. Two credits. Two lectures.

A study of the philosophical and critical essays of England and America: Bacon, Lamb, Macaulay, Carlyle, Ruskin, Chesterton, Emerson. Not given in 1923-1924. (House.)

ENG. 125. *Ballad Literature*—Second semester. Two credits. Two lectures.

Traditional English and Scottish ballads. Modern imitative ballads. American folk ballads. Popular song literature. Not given 1923-1924.

ENG. 126. *Tennyson*—First semester. Two credits. Two lectures.

Lectures on the art of poetry followed by a detailed reading of the Princess. Survey of other important poems of this author. (House.)

ENG. 127. *Browning's Dramas*—Second semester. Two credits. Two lectures.

Luria; Return of the Druses; Colombe's Birthday; Pippa Passes; A blot on the 'Scutcheon. (House.)

ENG. 128. *Authorship*—First semester. Two credits. Two lectures. Admission to class on recommendation of instructor.

Practice in the making of literature of various types; verse, essay, fiction, drama. Not given in 1923-24. (House.)

ENG. 129. *Authorship*—Second semester. Two credits.

Continuation of Eng. 128. Prerequisite, Eng. 128. Not given 1923-1924. (House.)

For Graduates

ENG. 201. *Seminar*—Credit proportioned to the amount of work and ends accomplished. (House.)

Original research and the preparation of dissertations looking toward advanced degrees.

ENG. 202. *Elizabethan Literature*—First semester. Three credits. Three lectures.

A study of Shakespeare and the chief Elizabethan dramatists, also a survey course of Milton's prose and poetry. (Lemon.)

ENG. 203. *Elizabethan Literature*—Second semester. Three credits. Continuation of Eng. 202. (Lemon.)

JOURNALISM

During the academic year 1923-1924 the only courses offered in preparation for Journalism are certain of the courses offered by the Department of English Language and Literature. It is planned to offer advanced courses in this field during 1924-1925.

PUBLIC SPEAKING

Four credit hours of public speaking are required in the curricula of the freshman and sophomore years. Courses are so arranged in this department that the student may do some work in this field throughout the four years of his college course.

Description of Courses

P. S. 101. *Reading and Speaking*—First semester. One credit. One lecture or recitation.

The principles and technique of oral expression; enunciation, emphasis, inflection, force, gesture and general delivery of short speeches. Impromptu speaking. Theory and practice of parliamentary procedure.

P. S. 102. *Reading and Speaking*—Second semester. One credit. One lecture or recitation.

Continuation of P. S. 101.

P. S. 103. *Advanced Public Speaking*—First semester. Two credits. Two lectures or recitations.

Advanced work on basis of P. S. 101-2 with special applications and adaptations. At each session of the class a special setting is given for the speeches—civil, social and political organizations, etc., and organizations in the field of the prospective vocation of the different students. When a student has finished this course he will have prepared and delivered one or more speeches which would be suitable and appropriate before any and all bodies that he would probably have occasion to address in after life.

P. S. 105. *Oral Technical English*—First semester. One credit. One lecture or recitation.

The preparation and delivery of speeches, reports, etc. on both technical and general subjects. Argumentation. This course is especially adapted to the needs of engineering students and is co-ordinated with the seminars of the College of Engineering.

P. S. 106. *Oral Technical English*—Second semester. One credit. One lecture or recitation.

Continuation of P. S. 105.

P. S. 107. *Oral Technical English*—First semester. One credit. One lecture or recitation.

The preparation and delivery of lectures, speeches, reports, etc., on both technical and general subjects. Argumentation. This course is especially adapted to the needs of students of chemistry. The head of the Department of Chemistry co-operates in the preparation of class programs. For sophomore chemistry students only.

P. S. 108. *Oral Technical English*—Second semester. One credit. One lecture or recitation.

Continuation of P. S. 107.

P. S. 109. *Advanced Oral Technical English*—First semester. Two credits. Two lectures or recitations.

This course is a continuation with advanced work of P. S. 105-106. Much attention is given to Parliamentary Procedure. Some of the class programs are prepared by the students and carried out under student supervision. For junior engineering students only.

P. S. 110. *Oral Technical English*—Second semester. Two credits. Two lectures or recitations.

Continuation of P. S. 109.

P. S. 111. *Advanced Oral Technical English*—First semester. One credit. One lecture or recitation.

Advanced work on the basis of P. S. 109-110. Work not confined to class room. Students are encouraged to deliver addresses before different bodies in the University and elsewhere. For senior engineering students only.

P. S. 112. *Oral Technical English*—Second Semester. One credit. One lecture or recitation.

Continuation of P. S. 111.

P. S. 113. *Oratory*—First semester. One credit. One lecture or recitation. Prerequisite P. S. 101.

The rhetoric of oral discourse. The speech for the occasion. Study of masterpieces of oratory. Practice in the writing and delivery of orations.

P. S. 114. *Oratory*—Second semester. One credit. One lecture or recitation.

Continuation of P. S. 113.

P. S. 115. *Extempore Speaking*—First semester. One credit. One lecture or recitation.

Much emphasis on the selection and organization of material. Class exercises in speaking extemporaneously on assigned and selected subjects. Newspaper and magazine reading essential.

P. S. 116. *Extempore Speaking*—Second semester. One credit. One lecture or recitation.

Continuation of P. S. 115.

P. S. 117. *Argumentation*—First semester. One credit. One lecture or recitation.

Theory and practice of argumentation and debate. Similar to course 118. This course is offered for the benefit of those who may find it impracticable to take this work in the second semester.

P. S. 118. *Debate*—Second semester. Two credits. Two lectures or recitations.

A study of the principles of argumentation. A study of masterpieces in argumentative oratory. Class work in debating. It is advised that those who aspire to intercollegiate debating should take this course.

P. S. 119. *Oral Reading*—First semester. Two credits. Two lectures or recitations.

A study of the technique of vocal expression. The oral interpretation of literature. The practical training of students in the art of reading.

P. S. 120. *Oral Reading*—Second semester. Two credits. Two lectures or recitations.

Continuation of P. S. 119.

GROUP IV. HISTORY AND THE SOCIAL SCIENCES

ECONOMICS AND BUSINESS ADMINISTRATION

As a result of the increasingly differentiated economic development of this country and other countries and owing to the concomitant development of higher and more complex forms of business organization, the last two decades have witnessed the growth of a more widespread interest in courses of instruction in the field of economics and the newer field of business administration. The work of this department is planned for two classes of students: (a) those who desire a general training in economics and the other social sciences; and (b) those who need a more or less specialized training in preparation for modern business.

The student majoring in this department will receive four years of training sufficiently broad and well balanced and at the same time sufficiently specialized to equip him for modern business pursuits.

Description of Courses

For Undergraduates

Soc. Sci. 101. *Elements of Social Science*—The year. Four credits. Two lectures each semester.

This course deals with the basis and nature of society; the process of social evolution; the economic organization of society; the rise of government and law as institutions; and the nature and extent of social control of man's activities. It forms the foundation upon which the principles of economics, the principles of sociology, and the science of government are based.

ECON. 102. *Economic History of the United States*—First semester. Two credits. Two lectures and recitations.

A study of the growth of industry, agriculture, commerce; transportation from the simple isolated communities of the early colonies to the complex industrial and commercial society of today; its effect on the population in terms of successive new adaptations.

ECON. 103. *Geography of Commerce*—First semester. Two credits. Two lectures and recitations.

A study of the various countries of the world with reference to raw materials, agricultural products, markets, trade routes, transportation systems and industrial development.

ECON. 104. *Economic Resources of the World*—Second semester. Two credits. Two lectures and recitations.

A study of the world's principal agricultural and mineral resources, with particular reference to basic and strategic raw materials; governmental policies of conservation; disposition of surplus products.

ECON. 105. *General Economics*—Second semester. Four credits. Four lectures and recitations. Not open to freshmen but required of students who elect to major in this department. Prerequisite, Soc. Sci. 101, except in case of students in the College of Agriculture.

General principles of economics; production, exchange, distribution and consumption of wealth; the monetary system; public finance; land and labor problems; monopolies, taxation and other similar topics.

For Advanced Undergraduates and Graduates

ECON. 106. *The Mathematical Theory of Investment*—The year. Six credits. Three lectures.

The application of mathematics to financial transactions; compound interest and discount, construction and use of interest tables, sinking funds, annuities, depreciation, valuation and amortization of securities, building and loan associations, life insurance, etc. (Spann.)

ECON. 108. *Economics for Engineers*—The year. Six credits. Three lectures and recitations each semester.

General principles of economics specially adapted for engineers. (Thompson.)

ECON. 110. *Money and Banking*—First semester. Three credits. Three lectures and recitations. Prerequisites, Soc. Sci. 101; Econ. 105.

A study of the nature and functions of money; standards of value and prices; credit; bank clearings and exchanges; history of American and foreign banking; the stock exchange and the money market. (Thompson.)

ECON. 111. *Corporation Finance*—Second semester. Three credits. Three lectures and recitations. Prerequisites, Soc. Sci. 101; Econ. 105.

Methods employed in the promotion, capitalization, financial management, consolidation and reorganization of business corporations. (Thompson.)

ECON. 112. *Public Finance*—First semester. Two credits. Two lectures and recitations. Prerequisites, Soc. Sci. 101; Econ. 105.

A study of the public expenditures, receipts, indebtedness and financial administration, theories of public expenditures; theories of taxation; the growth and nature of public credit; the forms of public debts; federal, state and municipal budgets. (Thompson.)

ECON. 113. *Practicum*—Two (or one) credit hours. Prerequisites, Soc. Sci. 101; Econ. 105.

Study of a leading trade journal. (Thompson.)

ECON. 115. *Business Organization*—First semester. Three credits. Three lectures and recitations. Prerequisites, Soc. Sci. 101; Econ. 105.

An introductory course in the fundamentals of business organization. Different types of business. Methods of control. Selection of location and determination of products to be handled. Business policies. The application of principles to the solution of specific problems.

ECON. 116. *Business Management*—Second semester. Three credit hours. Three lectures and recitations. Prerequisites, Soc. Sci. 101; Econ. 105.

The internal organization of the business for securing efficiency; departmental organization and co-ordination; advertising; salesmanship; office organization.

ECON. 118. *Business Law*—The year. Six credits. Three lectures and recitations each semester.

The aim of this course is to train students for practical business affairs by giving the legal information necessary to prevent common business errors. The following are some of the phases of the work: Requisites and forms of contracts and remedies for their breach; sales, passages of title, warranties; negotiable instruments, assignment and liability of signers; agency, title, abstracts, mortgages, leases, etc.

ECON. 120. *General Accountancy*—The year. Six credits. Three lectures with problems each semester.

The fundamental principles of single and double entry book-keeping; subsidiary records and controlling accounts; partnership accounts and adjustments; corporation accounts; types of stocks and bonds; sinking funds; voucher systems; manufacturing accounts. Preparation of balance sheet. (Juchhoff.)

ECON. 123. *Principles and Practices of International Trade*—Second semester. Three credits. Three lectures and discussions. Prerequisites, Soc. Sci. 101, Econ. 105.

Commercial and Trade relations of the United States with foreign countries; the forces governing the import and export markets; the geographical, social and economic factors affecting commercial development and expansion; the mechanism of international exchange and the financing of foreign trade.

For additional undergraduate courses in Economics see pages 70, 71 under agricultural economics.

For Graduates

ECON. 201. *History of Economic Theory*—The year. Four credits. Two lectures and assignments each semester.

History of economic doctrines and theories from the eighteenth century to the modern period, with special reference to the theories of value and distribution. (Thompson.)

ECON. 210. *Economics and Business Administration Seminar*—The year. Two or four credits. Open to students interested in research with proper training in general economics. (Department.)

ECON. 220. *Labor Problems*—The year. Four credits. Two lectures and assignments each semester. (May be omitted 1923-1924.)

A study of labor from the point of view of the employer, the employee and the public; the conflicts between labor and capital; methods employed to obtain industrial peace.

HISTORY

For the year 1923-1924 the courses in history and in political science are given under one department.

Description of Courses

For Undergraduates

H. 101. *Modern and Contemporary European History*—The year. Six credits. Three lectures and assignments each semester.

The object of the course is to acquaint students with the chief events in World History during the modern period. The lectures are arranged so as to present a comparative and contrastive view of the most important events during the period covered.

H. 102. *American History, 1492-1860*—First semester. Two credits. Two lectures and assignments. Open to sophomores or advanced undergraduates.

A study of the political, economic and social development of the American people, from the discovery of America to the Civil War period.

H. 103. *American History, 1860-1920*—Second semester. Two credits. Two lectures and assignments.

A study of the Civil War and reconstruction periods and the period of national development from the close of the reconstruction period to the present time.

H. 105. *History of Maryland*—Second semester. Two credits. Two lectures or recitations.

A study of the Colony of Maryland and its development into statehood.

H. 110. *Ancient Civilization (C. L. 101)*—First semester. Three credits. Three lectures or recitations.

See Classical Languages and Literature for description.

For additional courses in this field see courses listed under Political Science.

POLITICAL SCIENCE

For Undergraduates

Soc. Sci. 101. *Elements of Social Science*—The year. Four credits. Two lectures.

For description of course see page 98 under Economics.

POL. SCI. 102. *Government of the United States*—Second semester. Four credits. Four lectures and recitations. Prerequisite, Soc. Sci. 101, or may be taken concurrently. Not open to freshmen.

A study of the Government of the United States. Evolution of the federal constitution; function of the federal government.

For Advanced Undergraduates and Graduates

POL. SCI. 103. *Governments of Europe*—First semester. Two credits. Two lectures and recitations. Prerequisites, Soc. Sci. 101; Pol. Sci. 102.

A rapid survey and comparative study of the political organization of the principal states of Europe. Classification of forms, separation of powers. (Schulz.)

POL. SCI. 104. *American Municipal Government*—Second semester. Two credits. Two lectures and recitations. Prerequisites, Soc. Sci. 101; Pol. Sci. 102.

A study of American City Government: organization and administration; city manager and commission plans; initiative, referendum and recall. (Schulz.)

POL. SCI. 110. *Constitutional Law and History of the United States*. The year. Four credits. Two lectures and cases each semester. Prerequisites, Soc. Sci. 101; Pol. Sci. 102. Alternates with Pol. Sci. 111 and 112. Seniors and Graduate students. (Omitted 1923-1924.)

A study of the historical background of the Constitution and its interpretation. (Schulz.)

POL. SCI. 111. *International Law*—The year. Four credits. Two lectures, assigned reading and cases each semester. Prerequisites, Soc. Sci. 101; Pol. Sci. 102; H. 101-103. Alternates with Pol. Sci. 110 and 112. Seniors and Graduate students.

A study of the sources, nature and sanction of international law, peace, war and neutrality. (Schulz.)

POL. SCI. 112. *American Diplomacy*—The year. Four credits. Two lectures and cases each semester. Prerequisites as Pol. Sci. 111. (Omitted 1923-1924.) Alternates with Pol. Sci. 110 and 111. To be taken concurrently with Pol. Sci. 113.

A study of American foreign policy. (Schulz.)

POL. SCI. 113. *Diplomatic and Consular Procedure in Connection with American Interests Abroad*—The year. Two credits, one each semester. Prerequisites as for Pol. Sci. 112. To be taken concurrently with Pol. Sci. 112. (Omitted 1923-1924.)

The functions of Consular and Diplomatic Officers of the United States in connection with our foreign relations, with particular emphasis on the economic investigational and trade promotion services of these officers; notarial and quasi-legal, public health and other routine consular functions. Comparisons made with consular and diplomatic practices of other countries. (Lee.)

POL. SCI. 116. *Political Parties in the United States*—First semester. Three credits. Two lectures and assigned readings. Prerequisites, Soc. Sci. 101; Pol. Sci. 102.

The development and growth of American Political Parties. Party organization and machinery. (Schulz.)

POL. SCI. 120. *Political and Historical Survey of the Far East*. First semester. Two credits. Two lectures and assignments.

A study of the social and economic history of the principal countries of the Far East with special emphasis upon political and economic movements in China and Siberia. (Lee.)

POL. SCI. 121. *Political and Economic Relations with the Far East*. Second semester. Two credits. Two lectures and assignments.

Continuation of Pol. Sci. 120.

A study of the relations of the countries of the Far East with the United States and other Western Nations: policies of various governments toward countries of the Far East. (Lee.)

SOCIOLOGY

Students majoring in this department must have a good foundation in history, biological sciences and modern languages. In connection with the work of this department students have opportunities to visit such charitable and penal institutions and agencies of social betterment as are in Washington and Baltimore or within easy access of the University.

Description of Courses

For Undergraduates

Soc. Sci. 101. *Elements of Social Science*—The year. Four credits. Two lectures.

For description of course see page 98 under Economics.

For Advanced Undergraduates and Graduates

Soc. 102. *Anthropology*—First semester. Three credits. Three lectures and assignments. Prerequisite, Soc. Sci. 101. (May not be given 1923-1924.)

A study of prehistoric institutions; origins of capital, language, the family, state, religions and rights, with some reference to the natural history of man. (Lee.)

Soc. 103. *Ethnology*—Second semester. Three credits. Three lectures and assignments. Prerequisites, Soc. 101-102. (May not be given 1923-1924.)

A comparative study of races and racial differentiation; the dispersion of races over the earth. Wide reading in ethnography required. (Lee.)

Soc. 105. *General Sociology*—First semester. Three credits. Three lectures and assignments. Prerequisites, Soc. Sci. 101; Soc. 102-103. (Omitted 1923-1924.)

A study of the fundamental principles of the science of society; development of early industrial, religious, family, and regulative organizations, modes of social activity among savage, barbarous, and civilized peoples. (Lee.)

Soc. 106. *Applied Sociology*—Second semester. Three credits. Three lectures and assignments. Prerequisites Soc. Sci. 101; Soc. 102-105. Seniors and graduates. (Omitted 1923-1924.)

A comparative study of modern social conditions dealing with a cross section of modern society; its economic organization, labor, housing and health conditions; pauperism, crime, and remedial and corrective agencies; social surveys in theory and practice. (Lee.)

Soc. 110. *Social Psychology*—The year. Six credits. Three lectures and recitations each semester. Prerequisite, at least Soc. Sci. 101 and preferably Soc. 102-105.

This course deals with such psychological matters as underlie the work in the field of sociology and other social sciences. The fundamental instincts as dynamic forces in the individual and in society, their development, organization and control. Analysis of the value problem. (Thompson-Collier.)

For courses in rural sociology, educational sociology, history of the family, see pages 145, 146 under Education.

For Graduates

Soc. 201. *Sociological Systems* (Seminar)—The year. Four credits. Two each semester.

A comparative study of the most important sociological literature. (Lee.)

Soc. 205. *Self-Maintenance of Society*—The year. Four credits. Two lectures.

Extensive study of the beginning of the industrial organization of society; division of labor; capital; war; classes, and social organization. (Omitted 1923-1924.) (Lee.)

GROUP V. MATHEMATICS

Description of Courses

For Undergraduates

MATH. 101. *Algebra; Plane Trigonometry; Plane Analytic Geometry*—The year. Six credits. Three lectures. Alternative for students in the College of Arts and Sciences. Elective for other students.

Algebra is studied until the Christmas recess, plane trigonometry during January, February and March, and plane analytic geometry from April 1 to the end of the year.

Algebra includes for students who have entered with one unit of Algebra the study of quadratics, simultaneous quadratic equations, graphs, progressions, logarithms, etc., and for students who have entered with two units of Algebra, the study of elementary theory of equations, binomial theorem, permutations, combinations, etc.

Plane Trigonometry includes trigonometric functions and the deduction of formulas with their application to the solution of triangles and trigonometric equations.

Plane Analytic Geometry includes a discussion of the loci of equations in two variables, the straight line, the circle and the parabola.

MATH. 102. *Algebra*—First semester. Three credits. Three lectures. Arranged for Pre-medical and Pharmacy students in Baltimore.

This course is, in the main, similar to the portion of Math. 101 devoted to Algebra.

MATH. 103. *Plane Trigonometry*—Second semester. Three credits. Three lectures. Arranged for pre-medical and pharmacy students in Baltimore. Prerequisite, Math. 102.

This course is, in most respects, similar to the portion of Math. 101 devoted to Trigonometry.

MATH. 104. *Plane Trigonometry; Plane Analytic Geometry; Advanced Algebra*—The year. Ten credits. Four lectures and one laboratory period each semester. Required of freshmen in the College of Engineering. Elective for other students.

A review of Algebra during the first two weeks of the year, followed by the study of Plane Trigonometry until the Christmas recess. Plane analytic geometry is begun at the close of the Christmas recess and continued until April 15. Advanced Algebra is begun on April 15 and is studied until the end of the year.

Plane trigonometry includes trigonometric functions, the deduction of formulas and their application to the solution of triangles, trigonometric equations, etc.

Plane analytic geometry includes the curve and equation, the straight line, the conic sections and transcendental curves.

Advanced Algebra includes the elementary theory of equations, binomial theorem, permutations, combinations and other selected topics.

MATH. 105. *Plane Analytic Geometry; Calculus*—The year. Six credits. Three lectures each semester. Required of students in chemistry. Elective for other students. Prerequisite, Math. 101.

Plane analytic geometry is studied until the Christmas recess and calculus for the remainder of the year.

Plane analytic geometry includes the study of the ellipse, hyperbola and transcendental curves; and the development of empirical equations from graphs.

Calculus includes the study of the methods of differentiation and integration and the application of these methods in determining maxima and minima and areas, lengths of curves, etc. in the plane.

MATH. 106. *Calculus; Mathematics of Space; Special Topics*—The year. Ten credits. Five lectures each semester. Required of sophomores in the College of Engineering. Elective for other students. Prerequisites, Math. 104 and solid geometry.

Calculus is studied from the beginning of the year until April 1. The mathematics of space is studied during April and May. The last two weeks of the year are devoted to special topics.

Calculus includes a discussion of the methods of differentiation and integration and the application of these methods in determining maxima and minima areas, lengths of curves, etc., in the plane.

Mathematics of Space includes the solution of spherical triangles; the discussion of surfaces, curves and equations in three variables, the straight line, the plane and quadric surfaces; and the determination of areas, volume, etc. by the methods of the calculus.

Special Topics includes the determination of centers of gravity and moments of inertia; the development of empirical equations from graphs, etc.

MATH. 107. *Astronomy*—First or second semester. Two credit hours. Two lectures either semester. Elective. Prerequisite, a knowledge of the elements of trigonometry.

An elementary course in descriptive astronomy.

For Advanced Undergraduates and Graduates

MATH. 108. *Differential Equations*—First semester. Two credits. Two lectures. Elective. Prerequisite, Math. 105 or Math. 106.

The solution of the simpler differential equations is discussed.

MATH. 109. *Least Squares*—Second semester. Two credit hours; two lectures. Elective. Prerequisite, Math. 105 or Math. 106.

A short course in which stress is laid on the application to engineering, chemistry, etc.

MATH. 110. *Theory of Equations*—First semester. Two credits. Elective.

MATH. 111. *Elementary Theory of Functions of a Complex Variable*—Second semester. Two credits. Elective.

GROUP VI. MODERN LANGUAGES

In addition to the following lists of courses in modern languages particular attention is called to the course in comparative literature, (Mod. Lang. 201) for graduate students. This course deals with western literature from the time of Homer down to modern times, in which the literatures of various western peoples are studied by the comparative method.

GERMANIC LANGUAGES AND LITERATURE

Description of Courses

For Undergraduates

GERM. 1. *Elementary German*—The year. Eight credits. Four lectures or recitations each semester.

Drill upon pronunciation, elements of grammar, composition, dictation, translation. For beginners.

GERM. 101. *Second-Year German*—The year. Six credits. Three lectures or recitations each semester. Prerequisite, Germ. 1 or the equivalent.

Syntax, composition, conversation, translation, reproductions. Selections from modern prose, poetry, fiction. This course is for those who offer two units in German for entrance.

GERM. 102. *Schiller and the Drama*—First semester. Three credits. Three lectures or recitations. Prerequisite, Germ. 101.

Detailed study of the life and works of Schiller and his relation to the development of the German drama. Texts, lectures, reports. Given in alternate years.

GERM. 103. *Goethe and the Novel*—Second semester. Three credits. Three lectures or recitations. Prerequisite, Germ. 101.

Critical study of the life and works of Goethe together with the principles and development of the modern German novel.

For Advanced Undergraduates and Graduates

GERM. 104. *Lessing and German Prose*—First semester. Three credits. Three lectures or recitations. Prerequisite, Germ. 101.

A study of the life and works of Lessing and his relation to German criticism and philosophy. Texts, lectures, reports. Offered in alternate years. (Zucker.)

GERM. 105. *Heine and German Poetry*—Second semester. Three credits. Three lectures or recitations. Prerequisite, Germ. 104.

Extensive study of Heine and the growth of German poetry. Lectures, collateral reading, reports. (Zucker.)

GERM. 106. *History of German Literature*—The year. Six credits. Three lectures or recitations each semester. Prerequisites, Germ. 102 and 103 or 104 and 105.

Study of German literature from the earliest times to the present. Translation of representative works; lectures, reading, reports. (Zucker.)

HISPANIC LANGUAGES AND LITERATURES

Description of Courses

SPAN. 1. *Beginners' Spanish*—The year. Eight credits. Four recitations each semester.

Pronunciation, conversation, composition and the study of the elements of grammar. For beginners.

SPAN. 101. *Elementary Spanish*—The year. Eight credits. Four recitations each semester. Prerequisite, Span. 1. or the equivalent.

Conversation, study of grammatical forms and easy reading from selected texts.

SPAN. 102. *Intermediate Spanish*—The year. Six credits. Three lectures or recitations each semester. Prerequisite, Span. 101.

Spanish grammar and the reading of texts relating to the habits, customs, etc. of the people of Spanish countries.

For Advanced Undergraduates and Graduates

SPAN. 103. *Advanced Spanish*—First semester. Three credits. Three lectures or recitations. Prerequisite, Span. 102 and the approval of the instructor.

Grammar is completed and the study of modern literature is commenced. (Stinson.)

SPAN. 104. *Advanced Spanish*—Second semester. Three credits. Continuation of Span. 103.

ROMANCE LANGUAGES AND LITERATURES

FRENCH

Description of Courses

For Undergraduates

FREN. 1. *Elementary French*—The year. Eight credits. Four lectures or recitations each semester.

Drill upon pronunciation, elements of grammar; composition, conversation, easy translation. For beginners.

FREN. 101. *Second-Year French*—The year. Six credits. Three lectures or recitations each semester. Prerequisite, Fren. 1. or the equivalent.

Grammar continued; composition, conversation, translation, reproductions. Texts selected from modern prose and poetry. This course is for those who offer two units in French for entrance.

FREN. 102. *Development of the French Drama*—First semester. Three credits. Three lectures or recitations. Prerequisite, Fren. 101.

Analysis and study of the French drama of the seventeenth, eighteenth and nineteenth centuries. Lectures, translation, collateral reading and reports.

FREN. 103. *Development of the French Novel*—Second semester. Three credits. Three lectures or recitations. Prerequisite, Fren. 101.

Detailed study of the history and growth of the novel in French literature; of the lives, works and influence of various novelists.

For Advanced Undergraduates and Graduates

FREN. 104. *History of French Literature*—First semester. Three credits. Three lectures or recitations. Prerequisite, Fren. 102 or 103.

Study of French literature from the earliest times to the present. Translation of representative works, reading and reports. (Kramer.)

FREN. 105. *History of French Literature*—Second semester. Three credits.

Continuation of Fren. 104.

For Graduates

MOD. LANG. 201. *Comparative Literature*—The year. Six credits. Three lectures and assignments each semester.

A comparative study of the literatures of Western peoples from the Greek and Roman period to the Twentieth Century.

A limited number of senior students will be admitted to this course provided they have the proper foundation in languages and literatures.

GROUP VII. PHILOSOPHY

PHILOSOPHY AND PSYCHOLOGY

For Undergraduates

PSYCH. 101. *Elements of Psychology*—The year. Four credits. Two lectures and recitations each semester.

The facts and uniformities of mind; types of behavior, conscious experience, sensation and image, perception, attention, memory, emotion, action and thoughts. Experimental methods and their results are illustrated in lectures.

For Advanced Undergraduates and Graduates

PHIL. 101 *Introduction to Philosophy*—First semester. Three credits. Lectures and assignments.

A study of the meaning and scope of philosophy: its relations to the arts, sciences and religion. To be followed by Phil. 102.

PHIL. 102. *Problems and Systems of Philosophy*—Second semester. Three credits. Three lectures and reports on the reading of representative works. Prerequisite, Phil. 101.

Study of the problems and systems of philosophy together with tendencies of present-day thought.

PHIL. 104. *History of Philosophy*—The year. Six credits. Three lectures each semester. Senior standing required.

A study of the development of philosophy from prehistoric times, through Greek philosophy, early Christian philosophy, mediaeval philosophy to modern philosophical thought. (May be omitted 1923-1924.)

PSYCH. 110. (Soc. 110.) *Social Psychology*—The year. Six credits. Three lectures and demonstrations each semester.

For description of Course, see Sociology 110. (Thompson-Collier.)

For courses in educational psychology and psychology of childhood see page 146 under Education.

GROUP VIII. PHYSICAL SCIENCES

CHEMISTRY

The Department of Chemistry of the College of Arts and Sciences offers courses in inorganic, organic, physical, analytical, and industrial chemistry; and also includes the State control work of fertilizers, feed and lime analysis.

The above named courses which include the basic principles of chemistry serve as a necessary part of a general education and are designed to lay a foundation for scientific and technical work, such as medicine, engineering, agriculture, etc.

Besides serving in this fundamental way the courses are grouped to train chemists for the following careers:

1. *Industrial Chemist*—Chemistry is becoming more and more to be realized as the basis of many industries. Many apparently efficient chemical industries have become greatly improved by the application of modern chemistry. Chemical corporations employ chemists to manage and develop units of their plants.

2. *Agricultural Chemist*—The curriculum suggested fits men to carry on work in agricultural experiment stations, bureaus of soils, food laboratories, geological surveys, etc.

3. *Teacher of Chemistry*—There is a growing need of suitably trained science teachers in schools. The curriculum as outlined not only furnishes the necessary science but also affords the opportunity, in co-operation with the College of Education to take the educational subjects which are required to obtain the special teacher's diploma.

The same curriculum, together with work in the College of Education and graduate work, will fit a man to teach in college or university.

4. *Research Chemist*—The more progressive corporations have established chemical research laboratories. These laboratories are run with the main purpose of improving old processes and devising new ones. Highly trained chemists have charge of these laboratories. The general chemistry curriculum is for the undergraduate work, but for these positions work leading to a Master of Science or a Doctor of Philosophy degree is advised.

Curricula in Chemistry

GENERAL CHEMISTRY

	Semester:	I	II
SOPHOMORE YEAR			
Physics (Phys. 102).....		5	5
Plane Analytic and Calculus (Math. 105).....		3	3
Qualitative Analysis (Analyt. Chem. 101).....		2	
Elements of Physical Chemistry (Phys. Chem. 101).....		2	4
Elements of Psychology (Psych. 101).....		2	2
Public Speaking (P. S. 107-108).....		1	1
Basic R. O. T. C. (M. I. 103-104).....		2	2

JUNIOR YEAR

Public Speaking (P. S. 111-112).....	1	1
English (Eng. 103).....	2	2
Bacteriology (Bact. 101).....	3	
Economics (Econ. 105).....		4
Organic Chemistry (O. Chem. 103.).....	4	4
Quantitative Analysis (Anal. Chem. 105).....	4	4
Chemical Calculations (Anal. Chem. 102).....	1	1

SENIOR YEAR

Physical Chemistry (Phys. Chem. 102-103).....	4	4
Industrial Chemistry (Ind. Chem. 101).....	4	4
Physics (Phys. 105).....	3	
Electives	4	7

NOTE: The Freshman year for those majoring in General Chemistry is the same as for other students in the College of Arts and Sciences.

INDUSTRIAL CHEMISTRY

	Semester:	I	II
FRESHMAN YEAR			
Composition and Rhetoric (Eng. 101).....		3	3
Modern Language (Fr. or Germ. 1).....		4	4
Mathematics (Math. 101).....		3	3
Chemistry (Inorg. Chem. 101).....		4	4
Engineering Drafting (Dr. 101).....		1	1
Shop and Forge Practice (Shop 101).....		1	1
Basic R. O. T. C. (M. I. 101).....		2	2

SOPHOMORE YEAR

Oral English (P. S. 101-102).....	1	1
Physical Chemistry (Phys. Chem. 101).....	2	4
Qualitative Analysis (Analyt. Chem. 101).....	2	
Physics (Phys. 102).....	5	5
Plane Analytics and Calculus (Math. 105).....	3	3
Machine Shop Practice (Shop 103).....	1	1
Descriptive Geometry (Dr. 103).....	2	2
Plane Surveying (Surv. 101).....	1	1
Basic R. O. T. C. (M. I. 102).....	2	2

JUNIOR YEAR

Economics (Econ. 108).....	3	3
Engineering Geology (Geol. 101).....	1	1
Engineering Mechanics (Mech. 101-102).....	4	3
Prime Movers.....	2	2
Organic Chemistry (Org. Chem. 103).....	4	4
Analytical Chemistry (Analyt. Chem. 105).....	1	1
Chemical Calculations (Analyt. Chem. 102).....	1	1

SENIOR YEAR

Physical Chemistry (Phys. Chem. 102).....	4	4
Industrial Chemistry (Ind. Chem. 101).....	4	4
Eng. Jurisprudence (Engr. 105).....	1	
Public Utilities (Engr. 106).....		1
Electives in Engineering.....	9	9

AGRICULTURAL CHEMISTRY

FRESHMAN YEAR

	Semester:	
	I	II
Composition and Rhetoric (Eng. 101).....	3	3
Public Speaking (P. S. 101-102).....	1	1
Chemistry (Inorg. Chem. 101).....	4	4
Modern Language (Fr. or Germ. 1).....	4	4
Botany (Bot. 101).....	4	
Zoology (Zool. 101).....		4
Mathematics (Math. 104).....	3	3
Basic R. O. T. C. (M. I. 101).....	2	2

SOPHOMORE YEAR

Physical Chemistry (Phys. Chem. 101).....	2	4
Qualitative Analysis (Analyt. Chem. 101).....	2	
Feeds and Feeding (A. H. 102).....	3	
Dairy Products (D. H. 107).....		3
Geology (Soils 101).....	4	
Soils (Soils 102).....		3
Arts Physics (Phys. 101).....	4	4
Basic R. O. T. C. (M. I. 102).....	2	2

JUNIOR YEAR

Organic Chemistry (Org. Chem. 103).....	4	4
Agricultural Chemistry (108-109).....	3	3
English (Eng. 103).....	2	2
Electives in Agriculture.....	8	8

SENIOR YEAR

Physical Chemistry (Phys. Chem. 102).....	4	4
Agricultural Chemistry (Ag. Chem. 103).....	4	4
Economics (Econ. 105).....		4
Electives.....	9	6

Description of Courses

INORGANIC CHEMISTRY

INORG. CHEM. A. 101. *General Chemistry and Qualitative Analysis*—The year. Eight credits. Two lectures and two laboratory periods each semester.

A study of the non-metals and metals, the latter being studied from a qualitative standpoint. One of the main purposes of the course is to develop original work, clear thinking and keen observation. This is accomplished by the project-method of teaching.

Course A is intended for students who have never studied chemistry, or have passed their high school chemistry with a grade of less than A.

INORG. CHEM. B. 101. *General Chemistry and Qualitative Analysis*—The year. Eight credits. Two lectures and two laboratory periods each semester.

This course covers much the same ground as Inorg. Chem. A. 101, except the subject matter is taken up in more detail with emphasis on chemical theory and important generalization. The laboratory work deals with fundamental principles, the preparation and purification of compounds and a systematic qualitative analysis of the more common bases and acids.

Course B is intended for students who have passed an approved high school chemistry course with a grade of not less than A.

ANALYTICAL CHEMISTRY

ANALYT. CHEM. 101. *Advanced Qualitative Analysis*—First semester. Two credits. Two laboratory periods. Prerequisite, Chem. A or B 101.

An advanced course in qualitative analysis for students in chemistry.

ANALYT. CHEM. 102. *Chemical Calculations*—The year. Two credits. One each semester. Prerequisite, Inorg. Chem. 101.

Chemical problems relating to analytical chemistry.

ANALYT. CHEM. 103. *Quantitative Analysis*—Second semester. Three credits. Three laboratory periods. Prerequisite, Inorg. Chem. 101.

Quantitative analysis for premedical students with special reference to volumetric methods.

ANALYT. CHEM. 104. *Determinative Mineralogy and Assaying*—Second semester. Two credits. One lecture and one laboratory period. Prerequisite, Inorg. Chem. 101.

The more important minerals are identified by their characteristic physical and chemical properties. Assays of gold, silver, copper and lead are made.

ANALYT. CHEM. 105. *Quantitative Analysis*—The year. Eight credits. Two lectures and two laboratory periods. Prerequisite, Inorg. Chem. 101.

The principal operations of gravimetric analysis. Standardization of weights and apparatus used in chemical analysis. The principal operations of volumetric analysis. Study of indicators, typical volumetric and colorimetric methods. Required of all students majoring in chemistry.

ANALYT. CHEM. 106. *Electro-Chemical Analysis*—The year. Three credits. One lecture and two laboratory periods. Prerequisite, Phys. Chem. 107.

For Advanced Undergraduates and Graduates

ANALYT. CHEM. 107. *Advanced Quantitative Analysis*—The year. Eight credits. Two lectures and two laboratory periods each semester. Prerequisites, Inorg. Chem. 101; Analyt. Chem. 105.

A continuation of course 105. (Wiley.)

ORGANIC CHEMISTRY

ORG. CHEM. 101. *Elementary Organic Chemistry*—The year. Eight credits. Two lectures and two laboratory periods each semester. Prerequisite, Inorg. Chem. A or B 101.

A study of the aliphatic and aromatic compounds. The course is designed primarily for premedical students.

ORG. CHEM. 102. *Elementary Organic Chemistry*—First semester. Three credits. Two lectures and one laboratory period. Prerequisite, Inorg. Chem. A or B 101.

This course is designed primarily for agricultural students.

ORG. CHEM. 103. *Elementary Organic Chemistry*—The year. Eight credits. Two lectures and two laboratory periods each semester. Prerequisites, Inorg. Chem. A or B. 101.

This course is particularly designed for students taking chemistry as a major, and offers a detailed study of the typical organic compounds.

For Graduates

ORG. CHEM. 201. *Advanced Organic Chemistry*—The year. Six credits. Two lectures and assigned laboratory work each semester. Prerequisites, Inorg. Chem. A or B 101 and Org. Chem. 103.

A more advanced treatment of the aliphatic and aromatic compounds, with special emphasis on the most recent theories of structure and

reactions from the standpoint of the electronic conception of valence. (Kharasch.)

ORG. CHEM. 202. *Organic Preparations*—First semester. Five credits. One lecture and laboratory work.

The laboratory work consists in preparing compounds described in the literature. No text book. (Kharasch.)

ORG. CHEM. 203. *Selected Topics in Organic Chemistry*—Second semester. Two credits. Two lectures.

Discussion of the theories of tautomerism, electromerism, molecular rearrangements, etc. (Kharasch.)

ORG. CHEM. 204. *Dyestuffs*—Second semester. Two credits. Two lectures.

The theory of color as related to chemical constitution is included in this course. (Kharasch.)

ORG. CHEM. 205. *Elementary Organic Analysis (Combustions)*—First semester. Three credits. (Kharasch.)

ORG. CHEM. 206. *Identification of Organic Compounds*—Second semester. Five credits.

An outline of the methods and the theory for the qualitative identification of the most common organic compounds. (Kharasch.)

PHYSICAL CHEMISTRY

For Undergraduates

PHYS. CHEM. 101. *Elements of Physical Chemistry*—The year. Eight credits. Two lectures and two laboratory periods each semester. Prerequisites, Inorg. Chem. A or B 101; Physics 101; Math. 105 recommended.

The course will present the portions of physical chemistry which are necessary to every chemist, student of medicine, bacteriologist, or teacher of chemistry, with laboratory practice in thermometry and temperature regulation; physical constants; molecular weight determinations; velocity of reactions; chemical equilibrium and law of mass action; measurements of conductivity; migration of ions; hydrogen ion concentration.

For Advanced Undergraduates and Graduates

PHYS. CHEM. 102. *Physical Chemistry*—First semester. Four credits. Two lectures and two laboratory periods. Prerequisite, Phys. Chem. 101.

A study of the more advanced theories of physical chemistry with laboratory practice in the more technical physico-chemical measurements. (Gordon.)

PHYS. CHEM. 103. *Electro-chemistry*—Second semester. Four credits. Two lectures and two laboratory periods. Prerequisite, Phys. Chem. 102.

Various factors which govern the action of electrolytes when subject to the action of the electric current and the factors which determine electromotive force are taken up. (Gordon.)

For Graduates

PHYS. CHEM. 201. *Thermodynamics*—The year. Four credits. Two lectures each semester. Prerequisites, Phys. Chem. 102-103.

Designed for graduate students who wish an advanced mathematical treatment of chemical phenomena. Mellor's chemical statics and dynamics will be applied to Lewis's system of Physical Chemistry. (Gordon.)

PHYS. CHEM. 202. *Colloidal Chemistry*—The year. Six credits. Two lectures and one laboratory period each semester. Prerequisite, Phys. Chem. 101.

Special topics will be taken up with emphasis on the most recent theories and research going on in colloid chemistry at the present time. (Gordon.)

PHYS. CHEM. 203. *Radio-chemistry and Atomic Structure*—First semester. Two credits. Two lectures. Prerequisites, Phys. Chem. 102-103.

Lectures on the latest development of radio activity and allied topics and modern theories of atomic structure. (Gordon.)

PHYS. CHEM. 204. *Chemical Equilibrium*—Second semester. Two credits. Two lectures. Prerequisite, Phys. Chem. 103.

Lectures dealing with the application of chemical equilibrium to certain physical chemical problems with assignments of the original literature for collateral reading. (Gordon.)

PHYS. CHEM. 205. *The Phase*—One semester. Two credits. Two lectures. Prerequisite, Phys. Chem. 103.

Lectures with collateral reading dealing especially with application of the phase rule to industrial problems. (Gordon.)

PHYS. CHEM. 206. *Research in Physical Chemistry*.

Physical chemistry problems for investigation will be assigned to graduate students who wish to gain an advanced degree in chemistry. (Gordon.)

INDUSTRIAL CHEMISTRY

Agricultural Group

AG. CHEM. 101. *General Agricultural Chemistry*—The year. Six credits. Two lectures and one laboratory period each semester. Prerequisite, Inorg. Chem. 101.

An introductory survey of plant, animal, soil, fertilizer, and insecticide chemistry.

Laboratory work in this course will be of a quantitative and synthetic nature, dealing as far as possible with agricultural material.

AG. CHEM. 102. *The Chemistry of Foods*—Second semester. Three credits. Two lectures and one laboratory period. Prerequisites, Inorg. Chem. 101, Org. Chem. 101.

The purpose of this course is to present the principles of the chemistry of foods and nutrition with special reference to the fats, carbohydrates, proteins, enzymes, etc.

AG. CHEM. 103. *Chemistry of Textiles*—Second semester. Two credits. One lecture and one laboratory period. Prerequisites, Inorg. Chem. 101, Org. Chem. 101.

A study of the principal textile fibers, their chemical and mechanical structure; chemical methods are given for identifying the various fibers, dyes and mordants.

For Advanced Undergraduates and Graduates

AG. CHEM. 104. *Dairy Chemistry*—First semester. Three credits. One lecture and two laboratory periods. Prerequisites, Inorg. Chem. 101, Ag. Chem. 101.

Lectures and assigned reading on the constituents of dairy products. The laboratory work is designed to teach the methods of analysis of milk and its products. (Broughton.)

AG. CHEM. 105. *Plant Analysis*—First semester. Three credits. One lecture and two laboratory periods. Prerequisite, Inorg. Chem. 101, Ag. Chem. 101.

A discussion and the application of the analytical methods used in determining the inorganic and organic plant constituents. (Broughton.)

AG. CHEM. 106. *Soils and Fertilizer Analysis*—Second semester. Three credits. One lecture and two laboratory hours. Prerequisites, Inorg. Chem. 101, Ag. Chem. 101, Soils 101.

A complete analysis of soils and fertilizers, with training in the more refined analytical procedures as applied. (Broughton.)

AG. CHEM. 107. *Food Analysis*—The year. Six credits. One lecture and two laboratory periods each semester. Prerequisites, Inorg. Chem. 101, Analyt. Chem. 101.

Lectures and laboratory work including the analysis of edible fats and oils, sugars and syrups, vinegars, flavoring extracts, cereal foods and beverages. (Broughton.)

AG. CHEM. 108. *Physiological Chemistry*—First semester. Three credits. Two lectures and one laboratory period. Prerequisites, Inorganic Chem. 101, Org. Chem. 101.

The chemistry of carbohydrates, lipins, proteins, digestion, metabolism, and excretion. Open only to undergraduates. (Broughton.)

Industrial Chemistry Group

IND. CHEM. 101. The year. Four credits. Two lectures each semester. Prerequisites, Inorg. Chem. 101, Analyt. Chem. 101.

A fundamental lecture course in industrial chemistry, dealing with the problems of the chemical industries. The work in the first half of the year deals especially with inorganic industries, while that of the second is related to the organic industries. Students are required to go on inspection trips and make satisfactory written report upon the work of the trip.

IND. CHEM. 102. *Metallurgical Analysis*—The year. Four credits. Two laboratory periods each semester. Prerequisites, Inorg. Chem. 101, Analyt. Chem. 101-104.

Analysis of industrial ores and alloys, fuels, oils and gases.

IND. CHEM. 104. *Engineering Chemistry*—The year. Two credits. One lecture. Prerequisite, Inorg. Chem. A or B 101.

A lecture course dealing with the value of fuels, coal, oils, and gases, from their chemical analysis. The significance of flue gas analysis. Comparison of specifications, particularly chemical requirements of various states, manufacturers and large corporations for fuels, lubricating oils and paints. This course is given primarily for students in engineering.

Chemistry Seminar—The year. Two credits.

During these periods there is a discussion of the latest bulletins and scientific papers on all phases of chemistry by the graduate students and chemistry staff.

GEOLOGY AND MINERALOGY

For Undergraduates

GEOL. 104. *General Geology*—First or second semester. Four credits. Three lectures and one laboratory period either semester.

The surface features of the earth with emphasis on their origin and significance; the processes of geologic change; the effects of composition, hardness and structure of rocks on evolution of topographic forms; study of common rocks, minerals and soils.

GEOL. 105. (Analyt. Chem. 104) *Determinative Mineralogy*—Second semester. Two credits. One lecture and one laboratory period. Prerequisite, Inorg. Chem. 101.

The more important minerals are identified by their characteristic physical and chemical properties. Assays of gold, silver, copper and lead are made.

PHYSICS

For Undergraduates

PHYSICS 101. *Arts Physics*—The year. Eight credits. Three lectures or recitations and one laboratory period. Prerequisite, Math. 101.

A discussion in the class room and application in the laboratory of the laws governing the physical phenomena in Mechanics, Heat, Sound, Magnetism, Electricity and Light. Required of students in the Pre-Medical curriculum. Elective for other students.

PHYSICS 102. *Engineering Physics*—The year. Ten credits. Four lectures (or recitations) and one laboratory period each semester. Prerequisite, Math. 104.

Laws and theories pertaining to Mechanics, Heat, Sound, Magnetism, Electricity, and Light, with special reference to the problems which are concerned with engineering, are discussed in the class room and applied

in the laboratory. Required of all students in engineering and chemistry. Elective for other students.

PHYSICS 103. *Special Applications of Physics*—Second semester. Four credits. Four lectures (or recitations).

This course consists of a discussion of the laws and theories of physics from the viewpoint of their practical applications. Required of students in agriculture and home economics.

For Advanced Undergraduates and Graduates

PHYSICS 104. *Physical Measurements*—First semester. Two lectures (or recitations) and one laboratory period. Prerequisite, Physics 101 or 102.

This course is designed for the study of the theory of physical measurements and for familiarizing the student with the manipulation of the types of apparatus used in experimentation in physical problems. Elective. (Eichlin.)

PHYSICS 105. *Advanced Physics*—First semester. Three or four credits. Three lectures (or recitations) and one laboratory period. Prerequisite, Physics 101 or 102.

PHYSICS 106. *Advanced Physics*—Second semester. Three or four credits. Three lectures (or recitations) and one laboratory period. Prerequisite, Physics 101 or 102.

A discussion of the phenomena in Physical Optics, Spectroscopy, Conduction of Electricity through Gases, Radioactivity. Elective.

GROUP IX. THE PRE-MEDICAL CURRICULUM

The pre-medical curriculum includes the subjects and hours prescribed by the Council on Medical Education of the American Medical Association, together with additional subjects and hours totaling 68 semester hours exclusive of military drill.

Preference will be given students entering the School of Medicine of the University of Maryland, who present the credits obtained by the successful completion of this curriculum or its equivalent of 68 hours in 1924. In 1923 all students must satisfy the sixty (60) semester hour requirement of the Council on Medical Education of the American Medical Association.

In addition a combined seven-year curriculum is offered leading to the degrees of Bachelor of Science and Doctor of Medicine. The first three years are taken in residence at College Park and the last four years in Baltimore at the Medical School. The Pre-Medical Curriculum constitutes the first two years' work and a third year following the general outline given below, with the electives approved by the chairman of the pre-medical curriculum and the Dean of the College of Arts and Sciences, completes the studies at College Park.

Upon the successful completion of the first year in the Medical School and the recommendation of the Dean, the degree of Bachelor of Science may be conferred by the College of Arts and Sciences at College Park.

Students are urged to consider carefully the advantages this combination course offers over the minimum requirements of the two years. By completing three years the training may be greatly broadened by a wider latitude in the election of courses in the arts subjects.

Requirements for admission may be found following the pre-medical curriculum.

Pre-Medical Curriculum

Two Years

FRESHMAN YEAR		Semester	I	II
Composition (Eng. 101)		3	3
Mathematics (Math. 101)		3	3
General Zoology (Zool. 102-103)		4	4
German or French (Germ. or Fr. 1)		4	4
Basic R. O. T. C. (M. I. 101)		2	2
SOPHOMORE YEAR				
Public Speaking (P. S. 101-102)		1	1
Physics (Phys. 101)		4	4
Organic Chem. (Org. Chem. 103)		4	4
Zoology (Zool. 108)		3	
Quantitative Analysis (Analyt. Chem. 103)			3
Elements of Social Science (Soc. Sci. 101)		2	2
Psychology (Psych. 101)		2	2
Basic R. O. T. C. (M. I. 102)		2	2

Combined Seven-Year Course

JUNIOR YEAR				
Adv. Composition (Eng. 103)	.....	2	2	
Embriology (Zool. 120)	.....	4		
Bacteriology (Bact. 101)	.....		3	
Physical Chemistry (Phys. Chem. 101)	.....		4	
Economics (Econ. 105)	.....		4	
Electives	.....	6	3	

SENIOR YEAR

The curriculum of the first year of the medical school. The students may also elect the fourth year's work from advanced courses offered in the College of Arts and Sciences.

Requirements for Entrance

Admission to the curriculum in medicine is by a completed Medical Student Certificate issued by the registrar of the University of Maryland. This certificate is obtained on the basis of satisfactory credentials,

or by examination and credentials, and is essential for admission to any class.

The requirements for the issuance of the Medical Student's Certificate are:

(a) The completion of a standard four-year high school course or the equivalent, and in addition:

(b) Two years, sixty semester, or ninety trimester hours of college credits, including chemistry, biology, physics and English in 1923. In 1924 the completion of 68 semester hours as outlined in the Pre-Medical Curriculum, or its equivalent, will be required.

Women are admitted to the Medical School of this University.

(a) Details of the High School Requirements

For admission to the Pre-Medical Curriculum students,

1. Shall have completed a four-year course of 15 units in a standard accredited high school or other institution of standard secondary school grade or;

2. Shall have the equivalent as demonstrated by successfully passing entrance examinations in the following subjects:

Credits for admission to the pre-medical course may be granted for the subjects shown in the following list and for any other subject counted by a standard accredited high school as a part of the requirement for its diploma provided that at least eleven units must be offered in Groups I-V:

Schedule of Subjects Required or Accepted for Entrance to the Pre-Medical Curriculum

Subjects	Units	Required
GROUP I.—English:		
Literature and composition	3-4	3
GROUP II.—Foreign Languages:		
Latin	1-4	*2
Greek	1-3	..
French or German	1-4	..
Other foreign languages	1-4	..
GROUP III.—Mathematics:		
Elementary Algebra	1	1
Advanced Algebra	1/2-1	..
Plane Geometry	1	1
Solid Geometry	1/2	..
Trigonometry	1/2	..

*Both of the required units of Foreign Language must be of the same language, but the two units may be presented in any one of the languages specified.

Of the fifteen units of high school work, eight units are required, as indicated in the foregoing schedule: the balance may be made up from any of the other subjects in the schedule.

<i>Subjects</i>	<i>Units</i>	<i>Required</i>
GROUP IV.—History:		
Ancient History	1/2-1	..
Medieval and Modern History	1/2-1	..
English History	1/2-1	..
American History	1/2-1	..
Civil Government	1/2-1	..
GROUP V.—Science:		
Botany	1/2-1	..
Zoology	1/2-1	..
Chemistry	-1	..
Physics	-1	..
Physiography	1/2-1	..
Physiology	1/2-1	..
Astronomy	1/2-1	..
Geology	1/2	..
GROUP VI.—Miscellaneous:		
Agriculture	1-2	..
Bookkeeping	1/2-1	..
Business Law	1/2	..
Commercial Geography	1/2-1	..
Domestic Science	1-2	..
Drawing—Freehand and Mechanical	1/2-2	..
Economics and Economic History	1/2-1	..
Manual Training	1-2	..
Music—Appreciation or Harmony	1-2	..
Stenography	1	..

GROUP X. MISCELLANEOUS AND WORK FROM OTHER COLLEGES

MUSIC

The Department serves students of two general classes: those who make a specialty of the subject with a view to becoming musical artists or music teachers and those who pursue musical studies for purposes of enjoyment and general culture. For the former group extensive private instruction is provided with attention to technical development along particular lines; while as large provision as possible is made for all, in the various club activities and public lectures and recitals.

Description of Courses*

MUSIC 101. *History of Music*—The year. Two credits.

A comprehensive study of the development of music from the beginning to modern times. The early church influence. The ancient composers; those of the middle ages; and those of modern times.

MUSIC 102. *Music Appreciation*—The year. Two credits.

A study of all types of classical music with a view to developing the ability to listen and enjoy. Lecture recitals will be presented with the aid of performers and records. A study of the orchestra, the instruments that it employs. The development of the symphony and orchestra instruments for solo performance. The development of the opera and oratorio. Great singers of the past and present.

Chorus

Membership in the Chorus is free to all students, and to persons residing in the community. One semester hour of credit for the year is awarded to students for faithful attendance at weekly rehearsals and participation in public concerts. Oratorios and standard part-songs are studied. The Chorus presents an annual festival of music in May.

Glee Club

A Glee Club, of limited membership, is recruited from the best vocal talent among the men of the University. Admission is gained through tests, or "try-outs", conducted at the beginning of the school year. The club holds two rehearsals per week. Public concerts are given.

Military Band

This organization, of limited membership, is a part of the military organization of the University, and is subject to the restrictions and discipline of the Department of Military Science and Tactics, but the direction of its work is under the Department of Music.

Voice

Courses in voice culture are offered, covering a thorough and comprehensive study of tone production, based on the Italian method of singing.

The work required to develop a singer is begun with the most fundamental principles of correct breathing. Scale and arpeggio exercises, and all intervals, the portamento, legato, and staccato, and trill, and other embellishments to develop the technique of singing are studied through the medium of vocal exercises arranged by the greatest authorities on the voice, under the careful supervision of the instructor.

*NOTE: Lessons in harmony may be arranged for upon application to the head of the department.

The study of songs and ballads is adapted to the ability and requirements of each singer, a thorough training being given in diction and phrasing, through the medium of sacred and secular ballads, leading to the oratorio and opera.

Opportunities are afforded all voice pupils who are capable to make public appearances in the regular pupils' recitals, as well as in the churches of the community.

Tuition

One lesson per week, term of eighteen weeks.....\$24

The above price for lessons in voice are those offered to students of the University who are pursuing regular academic courses. Terms for private instruction outside the University may be secured from the instructor in voice.

Piano

Elementary piano courses. Work for beginners, based on the Leschetizky method.

Advanced piano courses. The college work in piano presupposes three years of preparatory study of the piano part or all of which may be taken at the University.

Lessons are taken twice a week. A four-year college course is as follows:

First Year—Technical studies based on the modern weight and rotary method: Heller Etudes, Sonatas of Haydn, Mozart, and Beethoven; selections from classic and modern composers.

Second Year—Bach Preludes; concertos by classic masters; Jensen Etudes; selections from classic, romantic, and modern composers.

Third Year—Leschetizky technic; Chopin Preludes and Waltzes; Bach Inventions; Mendelssohn Concertos, Beethoven Sonatas; selections from romantic and modern composers.

Fourth Year—Leschetizky technic; Chopin Etudes; Bach Well-Tempered Clavichord; sonatas and concertos by Grieg, McDowell, Schutt, Beethoven, etc, concert pieces by modern and romantic composers.

Tuition

One lesson per week, term of eighteen weeks.....\$24

Note.—Music tuitions are due in advance. Ten per cent. is added to all tuitions not paid in advance.

LIBRARY SCIENCE

L. S. 101. *Library Methods*—First semester. One credit. Freshman year. Required of all students registered in the College of Arts and Sciences. Elective for others.

This course is intended to help students use the library with greater facility. Instruction will be given by practical work with the various

catalogs, indexes and reference books. This course considers the general classification of the library according to the Dewey system. Representative works of each division are studied in combination with the use of the library catalogue. Attention is given to periodical literature, particularly that indexed in the Reader's Guide and in the Agricultural Index; and to various much used reference books which the student will find helpful throughout his college course.

MILITARY SCIENCE AND PHYSICAL EDUCATION

The requirements for all students of the College of Arts and Sciences in these fields are explained above in the section dealing with Requirements for the Degree of Bachelor of Arts or Bachelor of Science. A description of the courses and work required will be found elsewhere in the catalogue.

ELECTIVES IN OTHER COLLEGES AND SCHOOLS

A certain number of courses in the Colleges of Agriculture, Education, Engineering, and Home Economics may be taken as electives by advanced undergraduate students upon the approval of the dean and the authorization of the dean of the college in which the courses are offered.

College of Commerce and Business Administration

ADMINISTRATIVE COUNCIL

- ALBERT F. WOODS, A.M., D. Agr. LL.D., President of the University
 FREDERIC E. LEE, Ph.D., F. R. E. S., Advisory Dean
 MAYNARD A. CLEMENS, M.A., Acting Dean
 A. W. RICHESON, B.S., Assistant and Secretary of the Faculty
 LESLIE W. BAKER, M.C.S., C.P.A. (Accountancy)
 MORRIS E. SPEARE, Ph.D. (English)
 FRANK P. HINER, M.A. (Vocational Guidance and Employment)
 PERCY L. KAYE, Ph.D. (Economics)
 WILLIAM H. S. STEVENS, Ph.D. (Corporation Finance)
 ORMAND MILTON, B.A. (Banking and Investments)
 FREDERICK JUCKHOFF, LL.M., Ph.D., C.P.A.
 (Business Administration and Accountancy)
 K. E. KARLSON, Ph.D. (Foreign Trade)
 W. R. MANNING, Ph.D. (Foreign Trade)
 RICHARD B. PUE (Real Estate)
 FRANK M. COLLIER, Ph.D. (Social Psychology)
 CHARLES F. RANFT, M.A. (History)
 ERNEST R. SPEDDEN, Ph.D. (Public Speaking)
 WILLIAM H. WILHELM, M.A. (Commercial Mathematics)
 ANDREW H. KRUG, Ph.D. (Salesmanship)
 VICTOR RAY JONES, M.A., (Modern Languages)
 T. B. THOMPSON, Ph.D. (Economic History)
 PETER PECK, A.B., LL.B. (Business Law)

GENERAL STATEMENT

In response to repeated requests from men and women in Baltimore, the University of Maryland opened in that city in the fall of 1921 Extension Courses in Commerce to provide systematic instruction in those subjects which would be of benefit to those who were engaged in or who expected to engage in business. The demand for such courses proved to be so great—over five hundred students having been enrolled during the academic year 1922-1923—it was decided in the spring of 1923 to create, on the foundation of these Extension Courses, a College of Commerce and Business Administration which would be closely articulated with the College of Arts and Sciences of the University. In order to maintain a close relationship between the two colleges the dean of the College of Arts and Sciences was made Advisory Dean of the College of Commerce and Business Administration, and all matters pertaining to standards, degrees, courses of study, etc., are under the advisory control of the College of Arts and Sciences.

The rapid expansion of business in recent years has placed upon universities the duty of giving students systematic preparation for a business career. Modern business is now, in its higher forms, as much a learned profession as law, medicine, engineering or agriculture, and demands of those who enter it a professional training more definite and practical than that usually afforded by the general college course. These demands of modern business are being partially met by the University in its Department of Economics and Business Administration of the College of Arts and Sciences at College Park, in which students may major in the work of this department in courses leading to a B.S. or a B.A. degree. To provide for other types and classes of students of the state, however, and for a more technical preparation in this line, this reorganization of the courses in commerce in the city of Baltimore has taken place. The object of making this reorganization was to standardize the courses offered in this field in order that fully qualified students might complete a college course and receive, upon its completion, a standard collegiate degree. The courses and departments of study of this college are designed to meet the needs of three classes of students:

- I. Graduates of high schools who wish a thorough professional training for business careers, supplemented by the elements of a broad, liberal culture.
- II. Employed men and women who have completed one or more years of a college course and who desire to continue their education and complete the requirements for a university degree.
- III. A limited number of special students who desire to pursue certain courses in order to increase their efficiency, without reference to candidacy for a degree. Such special students must satisfy the instructors that they have adequate preparation for carrying the courses desired.

Late Afternoon and Evening Courses

In response to the needs of the greater number of students of the College of Commerce and Business Administration the work of the college for the present is centered in the late afternoon and evening classes, conducted in the buildings of the University of Maryland at the corner of Lombard and Greene streets, Baltimore. Students who desire full-time day work in this field may enroll in the College of Arts and Sciences at College Park and transfer later to the more professional courses in Baltimore.

Requirements for Admission

I. The requirements for admission to the College of Commerce and Business Administration for regular students who are candidates for a degree are, in general, the same as those for admission to any other undergraduate college or school of the University. Such students must present evidence of the completion of a four-year high school course of 15 units or its equivalent. Only such can obtain the Bachelor's Degree.

II. Special students of mature age who have only partially completed a four-year high school course or its equivalent may be admitted, and allowed to carry certain courses and to become candidates for a certificate. The admission of such students will depend entirely upon the extent of their education and business experience. These students cannot obtain a degree unless the complete entrance requirements are made up. Upon completion of a prescribed course, totaling at least 72 semester credit hours, they will be granted a Certificate of Proficiency. Students who have fulfilled all entrance requirements and have no immediate intention of completing a four-year course for a degree may also become candidates for a certificate.

III. Unclassified students may be admitted to special courses of study but not as candidates for a degree or certificate. Upon full matriculation in the University by the fulfillment of all entrance requirements, credits received for such courses may be then counted toward a degree or certificate.

Admission to Advanced Courses

Full credit is given for work in acceptable subjects completed at institutions which maintain standards of admission and graduation equal to those of this University. Students who have been regularly admitted and have pursued college courses in Liberal Arts and Science subjects in creditable institutions for a period of two years or more will be able to complete the requirements for a degree from this College in two years or by the completion of sixty semester credit hours of work. The last thirty hours of credit toward a degree, however must be secured in a college of the University of Maryland.

Requirements for the Degree

The College of Commerce and Business Administration is a professional college. Its graduates who have fulfilled all entrance requirements and

have completed one of the required or approved courses of study, and have secured credit for a minimum of 120 semester credit hours in liberal and professional subjects will be granted the degree of *Bachelor of Business Administration*.

Students who have successfully completed two years of college study in an approved institution may be granted the degree of *Bachelor of Business Administration* when they have successfully completed a minimum of 60 credit hours in required professional courses. Business demands to-day particularly men who are broadly trained and not men narrowly drilled in routine. It needs managers; not rank and file. Hence, two years of liberal college training are very desirable for students desiring to enter a business career.

Requirements for Certificate

Students not candidates for a degree who have pursued approved courses of study and have secured a total of 72 semester credit hours may be granted a Certificate of Proficiency. Such courses of study ordinarily require a period of four years of three evenings a week.

Credits

The "credit hour" represents one lecture or recitation hour per week throughout a semester.

To encourage a high grade of scholarship a system of credit for quality has been established.

For the purpose of evaluation to determine graduation, the following values of grades apply:

The grade "A" gives 1.2 times the normal credit.

The grade "B" gives 1.1 times the normal credit.

The grade "C" gives 1.0 times the normal credit.

The grade "D" gives .9 times the normal credit.

Thus a grade of "A" received in a 3-credit course has a value of 3.6 credits; a grade of "B" 3.3 credits; a grade of "C" 3 credits; a grade of "D" 2.7 credits.

The grades of "A", "B", "C", and "D" are the only ones carrying university credit. All other grades signify failure or condition. Not less than three-fourths of the credits required for graduation must be earned with grades of "A", "B", or "C".

Courses and Programs

The following fields of business training are provided for in the College of Commerce and Business Administration:

1. Accountancy
2. Business Administration
3. Banking and Investments
4. Foreign Trade and Commerce
5. Real Estate and Insurance

Full detailed information regarding courses of study, fees, etc., may be obtained from a special bulletin of the College of Commerce and Business Administration which may be secured by addressing Maynard A. Clemens, Acting Dean, College of Commerce and Business Administration, University of Maryland, Baltimore, or the President of the University of Maryland, College Park, Maryland.

SCHOOL OF DENTISTRY

FACULTY OF THE SCHOOL OF DENTISTRY

T. O. HEATWOLE, Dean

T. O. HEATWOLE, M. D., D. D. S.
Professor of Dental Materia Medica and Therapeutics

R. P. BAY, M. D.
Professor of Oral Surgery

B. M. HOPKINSON, A. M., M. D., D. D. S.
Professor of Oral Hygiene and Oral History

R. L. MITCHELL, PHAR. G., M. D.
Professor of Bacteriology and Pathology

H. J. MALDEIS, M. D.
Professor of Histology and Embryology

J. EDGAR ORRISON, D. D. S.
Professor of Operative Dentistry

M. B. MILNER, D. D. S.
Professor of Orthodontia

O. H. GAVER, D. D. S.
Professor of Physiology and Infirmary Chief

A. Y. RUSSELL, D. D. S.
Professor of Prosthetic Dentistry, Chief of Clinic and
Radiodontia Instructor

J. LEROY WRIGHT, M. D.
Professor of Anatomy and Biology

E. FRANK KELLY, PHAR. D.
Emeritus Professor of Chemistry

NEIL E. GORDON, PH., D.
Professor of Chemistry

E. B. STARKEY
Instructor of Chemistry

M. KHARASCH, PH., D.
Associate Professor of Chemistry

O. B. EICHLIN, B. S.
Professor of Physics

HOWARD LEE HURST, D. D. S.
Professor of Exodontia

GERALD I. BRANDON, D. D. S.
Professor of Crown and Bridge and Associate in Prothetic Technics

GEORGE S. KOSHI, D. D. S.
Associate in Crown and Bridge and Dental Clinic

D. EDGAR FAY, M. D.
Associate Professor of Physical Diagnosis

F. M. LEMON, A. M.
Assistant Professor of English

SAMUEL P. PLATT
Instructor of Mechanical Drawing

ALEX H. PATERSON, D. D. S.
Special Lecturer on Advanced Prosthetic Dentistry

B. B. IDE, D. D. S.
Special Lecturer on Dental Economics

ADALBERT ZELWIS, A. M., D. D. S.
Associate in Prosthetic Technic

GRAYSON W. GAVER, D. D. S.
Assistant in Prosthetic Clinic and Technic

MYRON S. AISENBERG, D. D. S.
Assistant in Science Laboratories and Clinical Demonstrator

C. R. GOLDSBOROUGH, M. D.
Assistant in Histology and Embryology

W. A. HALL, D. D. S.
Clinical Demonstrator and Orthodontia Technic

C. ADAM BOCK, D. D. S.
Demonstrator Exodontia and X-Ray

L. LYNN EMMART, D. D. S.,
Assistant Clinical Demonstrator

Administrative Officers

W. M. HILLEGEIST, Registrar

GEORGE S. SMARDON, Comptroller

RUTH LEE BRISCOE, Librarian

KATHARINE TOOMEY, Secretary to Dean

SARAH KELLY, Extracting Room Nurse

DOROTHY HARDY, Clinical Supply Clerk

VIOLA MAY KELLER, Senior Stenographer

The course of instruction in the School of Dentistry of the University of Maryland covers a period of four Sessions of 32 weeks each, exclusive of holidays, in separate years.

The Forty-Second Regular Session will begin October 1st, 1923, and continue until June 1st, 1924. Full attendance during this period is demanded in order to get advancement to higher classes. Class Examinations for the Session will be held in September, January, and May.

This Department of the University of Maryland is a member, in good standing, of the National Association of Dental Faculties, and conforms to all the rules and regulations of that body.

The many men of eminence in professional, civil and social life, graduates of this institution, distributed throughout the civilized world, will amply attest to the high standard and thorough training in vogue in the past, and effort will be kept abreast of the development in the practical scientific advancement of the profession in the future.

Aside from and independent of the Regular Session, this institution maintains a Summer Course, which follows immediately the termination of each Regular Session and continues until October 1st. This Course is intended for practical work only; no credit for time thus put in is allowed toward graduation. The many advantages of the Summer Session for actual practice cannot be overestimated, as the number of patients applying for dental services is always very large and the Infirmary is never closed except on Sundays and other holidays.

Requirements for Matriculation

The requirements for matriculation in the Dental Department of the University of Maryland are those established by the Dental Educational Council of America, viz, graduation from an accredited high school having a four-year course, or its equivalent.

Applicants for matriculation must submit their credentials for verification to the *Registrar of the University of Maryland, Baltimore, Md.*

Applicants lacking full credentials may earn the same by taking a stated written examination on subjects in which they are deficient.

Attendance Requirements

In order to receive credit for a full Session, each student must have entered and be in attendance not later than ten days after the beginning and remain until the close of the Regular Session, the dates for which are announced in the Annual Catalogue.

In case of sickness, attested by a physician's certificate, students may enter twenty days after the opening of the Regular Session.

Advanced Standing

Graduates from reputable and accredited dental colleges are admitted to the Sophomore Year and credits allowed on all subjects completed which are included in the Dental Course.

Students from other recognized dental colleges will be given credit for all work completed in the institution from which they come, except those entering for the Senior Year only. These will be required to take the work of the full Senior Course of this School.

At the close of each Session, each student must pass a satisfactory examination on the several subjects of that year before he can be entered in the succeeding class.

Requirements for Graduation

The candidate for graduation must have attended four sessions of instruction in some recognized dental college, the last year of which must have been in this institution.

He must have satisfied the requirements of each of the several instructors and proved himself proficient in the theory and practice of Dentistry.

He must have attained the age of twenty-one years and be of good moral character.

Students may matriculate by mail by sending money order, or registered letter containing the amount of fee, \$5.00, to Dr. T. O. Heatwole, Dean, Corner Green and Lombard Sts., Baltimore, Md.

Fees for Each Regular Winter Course

Matriculation (paid once only), \$5.00. Tuition fee, \$200.00. Dissecting fee (paid once only), \$15.00. Laboratory fee, \$5.00.

(The Diploma fee must be paid by the first of April of the year of graduation.)

The tuition fee may be paid as follows: One hundred dollars at the beginning of session, and balance during the first week of the succeeding February; this rule must be strictly observed.

A special ticket is issued at the close of each session to every student of the first, second and third year classes, as an evidence that he has been successful, or unsuccessful, in examinations for advancement to a higher class and also that he has attended a full session.

No assessment is made on candidates for graduation, the University bearing all the expenses attending the Commencement Exercises.

College of Education

The College of Education is an organization of the various activities of the University concerned with the preparation of individuals for position in the educational profession. Its courses are planned to serve three classes of students: First, those preparing to teach agriculture, arts and science, home economics and industrial subjects in high schools; second, prospective principals of high schools, educational supervisors, county agents, home demonstrators, boys' and girls' club workers, and other educational specialists; third, those majoring in special fields who desire courses in education for their professional and informational value.

Requirements for Admission

The requirements for admission to the College of Education are in general the same as for the admission to any other college or school of the University. Fifteen units of secondary school work in acceptable subjects must be offered by every candidate for admission, including the following prescribed subjects:

English	3 units
Mathematics	2 units
Science	1 unit
History	1 unit
<hr/>	
Total	7 units

Degrees

The degrees conferred upon students who have met the prescribed conditions for a degree in the College of Education are: Bachelor of Arts; Bachelor of Science.

Teachers' Special Diplomas

The degrees granted for work done in the College of Education indicate primarily the quantity of work completed. Teachers' special diplomas certify to the professional character of such work. Teachers' special diplomas will be granted only to those who, besides qualifying for a degree, give promise of superior professional ability as evidenced by their personality, character, experience and success in supervised teaching.

Teachers' special diplomas will be granted in agricultural education, arts and science education, home economics education, manual training and industrial education.

The recipient of a teacher's special diploma is eligible for certification by the State Superintendent of Schools without examination.

Departments

The College of Education is organized into two general divisions: General Education and Vocational Education. In the main the College includes work in the following departments offering general and professional training for teachers: Agricultural Education, Arts and Science Education, Home Economics Education and Industrial Education.

Curricula

Two types of curriculum are offered. These correspond with the two general divisions of the college organization: General Education and Vocational Education.

The first of these is designed to prepare teachers of the arts and sciences in the high schools and to prepare specialists for the profession of Education. It therefore provides a wide range of electives. The basic requirements are fixed and definite, but the student may select from a number of subjects the major and minor subjects in which he expects to qualify for teaching. The student may secure the degree either of Bachelor of Arts or Bachelor of Science, depending upon his major content subject.*

The curricula in Vocational Education are designed for the definite purpose of preparing teachers and supervisors of agriculture, home economics, manual training and industrial subjects. They permit, therefore, comparatively little choice of subjects. As the University of Maryland is the institution designated by the State Board of Education for the training of teachers of vocational agriculture, home economics, and trades and industries under the provisions of the Smith-Hughes vocational educational act, the curricula in this class have been organized to meet the objectives set up in the act and in the interpretations of the Federal Board for Vocational Education and the State Board of Education. These curricula lead to the degree of Bachelor of Science.

As an integral part of every curriculum of the College of Education leading to a degree, a minimum of 20 credits in Education is required. This minimum includes the following prescribed subject units:

Education in the United States.....	2
Educational Hygiene	2†
Educational Psychology	3
Technic of Teaching.....	3
Special Methods	3
Principles of Secondary Education.....	3
Supervised Teaching	3

Upon completion of 134 credits in conformity with the requirements specified above and in conformity with general requirements of the University, the appropriate degree will be conferred.

*For information in regard to Arts and Science Departments and subjects see page 82.
†Except in Agricultural Curriculum.

Facilities

In addition to the general facilities offered by the institution as a whole, by special arrangement with the county and state school authorities the high school located at Hyattsville within two miles of the University is used for college credit work in supervised teaching. The observation work necessary for efficient teacher training is conducted in Washington and in nearby Maryland schools. The nearness of these schools to the institution and of the federal offices and libraries dealing with education provide unusual opportunities for contact with actual classroom situations and current administrative problems in education.

Special Courses

By special arrangement courses in education are offered evenings and Saturdays to teachers in service and to others who may desire to qualify for teaching in the schools of Maryland after having had such work. College credit may be granted for this work if taken in course. With present facilities only a limited amount of service of this kind can be undertaken.

As the need for evening classes in industrial and home economics education arises, special courses will be offered at centers throughout the State. The number and location of these centers will depend entirely upon the need and demand for such instruction. The courses will be organized on the short unit basis and will be maintained only so long as the demand justifies them. Upon the satisfactory completion of such curricula, students will be issued certificates stating the amount and character of work done.

In summer special courses are offered for the benefit of teachers in service and such individuals as may be able to qualify for teaching upon the completion of the work.

Professional Preparation for Prospective Teachers

The State Board of Education will certify to teach in the approved high schools of the State only such persons as have had satisfactory professional preparation. In terms of quantity this requires a minimum of 20 semester hours of professional education courses. Students who hope to teach in approved high schools of the State must, therefore, secure this professional preparation.

The State Department of Education is stimulating and encouraging instruction in music and athletics in the high schools of the State. In the majority of these schools the instruction in these subjects will have to be carried on by teachers who teach other subjects as well. Training in either or both of these subjects will be valuable for prospective teachers.

All students wishing to prepare for teaching should consult the Dean of the College of Education regarding possible combinations and the arrange-

ment of their work. At the time of matriculation each student is expected to make a provisional choice of the subjects which he desires to prepare to teach and to secure the advice and approval of the head of the department which offers these subjects. The previous training, the experience and the probable future needs of the student will govern the head of the department in his recommendations.

CURRICULA

ARTS AND SCIENCE EDUCATION

Upon registration for this curriculum students should state the subjects in which they expect to qualify for teaching, designating a major and a minor interest. Candidates for the Bachelor of Arts degree must complete, in addition to the requirements of the curriculum, a minimum of eight credits in foreign language.

Students electing this curriculum may register either in the College of Education or the College of Arts and Sciences. In any case they will register with the College of Education for the special teacher's diploma.

FRESHMAN YEAR	Semester:	I	II
Composition and Rhetoric (Eng. 101).....		3	3
Educational Guidance (Ed. 100).....		1	1
Reading and Speaking (P. S. 101).....		1	1
Basic R. O. T. C. (M. I. 101) or Physical Education (Phys. Ed. 101)		2	2
Foreign Language (French, German, Spanish, Latin, Greek)		4	4
*Inorganic Chemistry (Chem. 101-A or 101-B).....		4	4
(One of these)			
Modern and Contemporary History (H. 101).....		3	3
English Literature (Eng. 102).....		3	3
Mathematics (Math. 101).....		3	3
		18	18
SOPHOMORE YEAR	Semester:	I	II
Public Education in the United States (Ed. 101).....		2	..
Educational Hygiene (Ed. 102).....		..	2
Basic R. O. T. C. (M. I. 102) or Physical Education (Phy. Ed. 102)		2	2
Elements of Social Science (Soc. 101).....		2	2
General Zoology (Zool. 101).....		4	..
General Botany (Bot. 101) or Entomology (Ent. 101) or Field Zoology (Zool. 106).....		..	4
†Electives		8	8
		18	18

*This requirement may be modified in case of students who enter with three years of Chemistry in the high school. Such students, with the advice and consent of the Head of the Department of Chemistry, may elect advanced Chemistry; or with the consent of the Dean may substitute some other subject. Students purposing to major in Chemistry see page 110 for prerequisite.

†The electives will be determined by the student's choice of major and minor subjects.

JUNIOR YEAR	Semester:	I	II
Educational Psychology (Ed. 103).....		3	..
Technic of Teaching (Ed. 104).....		..	3
English (one three hour course).....		3	3
*Electives		10	10
		—	—
		16	16

SENIOR YEAR	Semester:	I	II
Special Methods (Ed. 110, 111, 112, 113, 114).....		3	..
Principles of Secondary Education (Ed. 105).....		..	3
†Supervised Teaching (Ed. 115).....	
*Electives		12	12

AGRICULTURAL EDUCATION

In addition to the regular entrance requirements of the University, involving graduation from a standard four-year high school, students electing the agricultural education curriculum must present evidence of having acquired adequate farm experience after reaching the age of fourteen years.

The electives allowed by this curriculum may be selected from any of the courses offered by the University for which the student has the necessary prerequisites. A student is expected, however, to confine his elections to subjects relating to farming and to teaching. Though opportunity is afforded for specialization in a particular field of agriculture, such as animal husbandry, agronomy, pomology, vegetable gardening or farm management, students should arrange their work so that approximately forty per cent of their time will have been spent on technical agriculture, twenty-five per cent on scientific subjects, twenty per cent on subjects of a general educational character, and from twelve to fifteen per cent on subjects in professional education.

Students electing this curriculum may register either in the College of Education or the College of Agriculture. In either case they will register with the College of Education for the special teacher's diploma.

FRESHMAN YEAR	Semester:	I	II
Animal Husbandry (A. H. 101).....		4	..
Vegetable Gardening (Hort. 111).....		..	4
General Chemistry (Chem. 101-A or 101-B).....		4	4
General Botany (Bot. 101).....		4	..
General Zoology (Zool. 101).....		..	4
Composition and Rhetoric (Eng. 101).....		3	3
Educational Guidance (Ed. 100).....		1	1
Basic R. O. T. C. (M. I. 101).....		2	2

*The electives will be determined by the student's choice of major and minor subjects, and by requirements of Education courses.

†Either semester; 3 or 5 credits.

SOPHOMORE YEAR	Semester:	I	II
Public Education in the United States (Ed. 101).....		2	..
Agricultural Chemistry (Ag. Chem. 101).....		3	3
Field Crop Production (Agron. 101-102).....		3	3
Geology (Soils 100).....		3	..
Principles of Soil Management (Soils 101).....		..	3
Feeds and Feeding (A. H. 101).....		3	..
Dairying (D. H. 101).....		..	3
Elementary Pomology (Hort. 101).....		3	..
Principles of Economics (Ec. 105).....		..	4
Basic R. O. T. C. (M. I. 102).....		2	2

JUNIOR YEAR	Semester:	I	II
Educational Psychology (Ed. 103).....		3	..
Technic of Teaching (Ed. 104).....		..	3
Public Speaking (P. S. 101).....		1	1
Farm Machinery and Farm Shop (Agr. Eng. 101).....		3	..
Poultry (Poultry 101).....		..	3
Bacteriology (Bact. 101).....		3	..
Landscape Gardening (Hort. 127).....		..	2
Agricultural Economics (A. E. 101).....		3	..
Marketing of Farm Products (A. E. 102).....		..	3
Electives		3-5	3-6

SENIOR YEAR	Semester:	I	II
Teaching Secondary Vocational Agriculture (Ed. 121)...		3	..
*Practicum Teaching Secondary Vocational Agriculture (Ed. 123)		3	3
Principles of Secondary Education (Ed. 105).....		..	3
Rural Sociology and Educational Leadership (Ed. 123)...		..	3
Farm Management (F. M. 101).....		3	..
Expository Writing (Eng. 104).....		2	2
Electives		8-10	8-10

HOME ECONOMICS EDUCATION

In addition to the regular entrance requirements of the University, involving graduation from a standard four-year high school, students electing home economics education must present evidence of two years' experience in the home as a house daughter, during which time a large share of the responsibility in the management of the home was assumed.

Students may elect from other schools such courses as they may be qualified to enter. They are expected, however, to confine their election primarily to subjects related to home-making and to teaching. The curriculum should be so arranged that approximately forty per cent of the students' time will be spent on technical home economics subjects, twenty-five per cent on scientific subjects, twenty per cent on subjects of general

*Either semester; 3-5 credits.

academic character, and from twelve to fifteen per cent on subjects of a professional character.

Students electing this curriculum may register either in the College of Education or the College of Home Economics. In either case they will register with the College of Education for the special teacher's diploma.

FRESHMAN YEAR		Semester:	I	II
Educational Guidance (Ed. 100)			1	1
Composition and Rhetoric (Eng. 101)			3	3
General Chemistry (Chem. 101-A or 101-B)			4	4
General Zoology (Zool. 101)			4	..
General Botany (Bot. 101)			..	4
Modern and Contemporary History (H. 101)			3	3
Physical Education (Phys. Ed. 101)			2	2
SOPHOMORE YEAR		Semester:	I	II
Educational Hygiene (Ed. 102)			2	..
Public Education in the United States (Ed. 101)			..	2
Organic Chemistry (Org. Chem. 102)			3	..
Chemistry of Foods (Ag. Chem. 102)			..	3
Elementary Foods (Foods 101)			3	3
Art (Art 101)			3	..
Costume and Design (Art 102)			..	3
Textiles (Textiles 101)			2	..
Garment Construction (Cloth. 101)			..	2
Elements of Social Science (Soc. 101)			2	2
Physical Education (Phys. Ed. 102)			2	2
JUNIOR YEAR		Semester:	I	II
Educational Psychology (Ed. 103)			3	..
Technic of Teaching (Ed. 104)			..	3
General Bacteriology (Bact. 101)			3	..
Physics (Physics 103)			..	4
Dressmaking and Elementary Dress Design (Cloth 102)			3	..
Nutrition (Foods 102-103)			3	3
Public Speaking (P. S. 101)			1	1
Electives			4	6
SENIOR YEAR		Semester:	I	II
Methods of Teaching Vocational Home Economics (Ed. 130)			3	..
Principles of Secondary Education (Ed. 105)			..	3
Supervised Teaching Secondary Voc. Home Economics (Ed. 131)			..	3
Home Management and Mechanics of the Household (H. M. 101)			3	..
Practice House (H. M. 102)			..	4
Education of Women (Ed. 132)			3	..
Child Care and Welfare (Ed. 133)			..	3
Electives			7	3

JUNIOR AND SENIOR ELECTIVES

History of Education (Ed. 106)	3	..
Advanced Educational Psychology (Ed. 107)	..	3
Rural Sociology and Education Leadership (Ed. 123)	..	3
Home Architecture and Interior Decoration (Art. 104)	3	..
Millinery (Cloth 104)	..	3
Chemistry of Textiles (Textile 102)	2	2
Dressmaking (Cloth 102)	..	3

INDUSTRIAL EDUCATION

Three types of curricula are offered in Industrial Education, viz., a four year curriculum, a two year curriculum and a special curriculum. The first two are offered as resident work at the University and the third is offered at special centers in the State where occasion demands.

Four-Year Curriculum in Industrial Education for Teachers of Related Subjects

In addition to the regular entrance requirement of the University, involving graduation from a standard four-year high school, students electing the four-year curriculum in industrial education must be willing to engage in the trades or industries during the three summer vacations.

The electives allowed by this curriculum may be chosen from any of the courses offered in the University for which the student has the necessary prerequisite.

Two-Year Curriculum in Industrial Education for Teachers of Related Subjects

This curriculum is designed for mature students who have had considerable experience in some trade or industry.

In addition to the above, applicants for admission to this curriculum must have as a minimum requirement an elementary school education or its equivalent and must be willing to engage in the trades and industries during the summer vacation.

The curriculum will not be rigidly required as laid down, but will be made flexible, in order that it may be adjusted to the needs of students who present advanced credits for certain of the required courses.

Special Courses for Teachers of Trades and Related Trade Subjects

To meet the needs for industrial teacher training in Baltimore, two types of courses are offered in the evenings in that city—one for teachers of trade subjects, the other for teachers of related trade subjects. The courses open about the last of September and close about the last of April. The class for teachers of trade subjects meets twice a week, the one for teachers of related trade subjects meets once a week. The recitation period in all cases is two hours.

Applicants for admission to these classes must have had considerable experience in the line of work they expect to teach, and must have, as a minimum requirement an elementary school education or its equivalent. The credit allowed for these courses depends upon the amount and character of the work completed.

For teachers of trade subjects the term's work deals with the analysis and classification of trade knowledge for instructional purposes, the mechanics and technique of teaching, shop and class-room management, and the organization of industrial classes. The work for teachers of related subjects is similar to that described for teachers of trade subjects except that emphasis is placed upon the analysis of their specialties in relationship to the different trades with which they are articulated.

Description of Courses

GENERAL EDUCATION

A. Principles and History

Ed. 100. *Educational Guidance*—The year. Two credits. One lecture each semester. Open to all freshmen. Required of freshmen in Education.

This course is designated to assist students in adjusting themselves to the demands and problems of college and professional life and to guide them in the selection of college work during subsequent years. Among the topics discussed are the following: student finances; student welfare; intellectual ideals; recreation and athletics; general reading; student organization; student government; the purpose of the college; the election of courses and the selection of extra curriculum activities.

Ed. 101. *Public Education in the United States*—First semester. Two credits. Two lectures. Required of all sophomores in Education.

The evolution of public education in the United States as the expression and promoter of democracy, emphasizing particularly vocational education and present tendencies in reorganization; recent state and federal school laws; proposed legislation.

Ed. 102. *Educational Hygiene*—Second semester. Two credits. Two lectures. Open to sophomores and juniors. Required of sophomores in Education.

Elements of general, individual and group hygiene; causes of health and disease; habits; knowledge and ideals of health; health as an objective of education.

Ed. 103. *Educational Psychology*—First semester. Three credits. Open to juniors and seniors. Required of all juniors in Education.

General characteristics and use of original tendencies; principles of mental evolution and development; the laws and methods of learning;

experiments in rate improvement; permanence and efficiency; causes and nature of individual differences; principles underlying mental tests; principles which should govern school practices.

Ed. 104. *Technic of Teaching*—Second semester. Three credits. Four lectures and one laboratory period. Open to juniors and seniors. Required of juniors in Education. Prerequisite, Ed. 103.

The nature of educational objectives; steps of the lesson plan; observation and critiques; survey of teaching methods; type lessons; lesson planning; class management.

Ed. 105. *Principles of Secondary Education*—Second semester. Three credits. Required of all seniors in Education.

Evolution of secondary education; articulation of the secondary school with the elementary school, college technical school, and with the community and the home; the junior high school; programs of study and the reconstruction of curricula; the teaching staff and student activities.

Ed. 106. *History of Education*—First semester. Three credits. Three lectures. Open to juniors and seniors.

History of the evolution of educational theory, institutions, and practices.

Ed. 107. *Educational Sociology*—First or second semester. Three credits. Three lectures. Open to advanced undergraduates and graduates.

The sociological foundations of education; group needs; educational objectives; educational institutions; the program of studies; need for special organizations; possibilities of the special group leaders in adult education; educational programs.

Ed. 108. *Advanced Educational Psychology*—Second semester. Three credits. Three lectures. Prerequisite, Ed. 103.

The problem of individual differences, causes and influences making for individual differences, such as sex, race, ancestry, maturity, and environment. Mentality and its development, variations in mentality, types of intellect and character, measurement of intelligence, intelligence tests, their uses and limitations.

Ed. 109. *Seminar in Education*—Second semester. Three credits. Graduates.

Problems in educational administration.

B. Arts and Science Education

Ed. 110. *English in Secondary Schools*—First semester. Three credits. Two lectures and one laboratory period. Required of seniors preparing to teach English. Prerequisite, Ed. 104.

Objectives in English in the different types of secondary schools; selection of subject matter; state requirements and state courses of study; evaluation of the course of study in terms of modern practice and group needs; the organization of the materials; lesson plans; measuring results; observations and critiques.

ED. 111. *History and Civics in Secondary Schools*—First semester. Three credits. Two lectures and one laboratory period. Open to juniors and seniors. Required of seniors preparing to teach history. Prerequisite, Ed. 104.

Objectives of history and civics in secondary schools; selection of subject matter; parallel reading; state requirements and state courses of study; the development of civics from the community point of view; reference books, maps, charts and other auxiliary materials; the organization of materials; lesson plans, checking and measuring results; observations and critiques.

ED. 112. *Foreign Language in Secondary Schools*—First semester. Three credits. Two lectures and one laboratory period. Open to juniors and seniors. Required of seniors preparing to teach foreign language. Prerequisite, Ed. 104.

Objectives of foreign language in secondary schools; selection of subject matter; state requirements and state courses of study; the organization of material for teaching; lesson plans; special devices and auxiliary materials; observation and critics.

ED. 113. *Mathematics in Secondary Schools*—First semester. Three credits. Two lectures and one laboratory period. Open to juniors and seniors. Required of seniors preparing to teach mathematics. Prerequisite, Ed. 104.

Objectives of mathematics in secondary schools; selection of subject matter; State requirements and State courses of study; proposed reorganizations; lesson plans; checking and measuring results; observation and critiques.

ED. 114. *Science in Secondary Schools*—First semester. Three credits. Two lectures and one laboratory period. Open to juniors and seniors. Required of seniors preparing to teach science. Prerequisite, Ed. 104.

Objectives of science in secondary schools; selection of subject matter; State requirements and State courses of study; sources of materials; the organization of materials for instruction; methods of the class period; lesson plans; the preparation and organization of laboratory instruction; note books.

ED. 115. *Teaching Arts and Science Subjects*—Three to five credits. Determined by amount and character of work done. Required of seniors preparing to teach arts and science subjects. Subject selected depends upon the student's specialty. Ed. 110 or Ed. 111 or Ed. 112 or Ed. 113 or Ed. 114 must be offered as a prerequisite to or as parallel with this course depending upon the student's specialty.

Observation; course outline; lesson plans; class teaching, critiques.

VOCATIONAL EDUCATION

ED. 120. *Theory of Vocational Education*—Second semester. Three credits. Open to advanced undergraduates and graduate students by special arrangement.

Evolution of vocational education, educational and social forces behind the movement; terminology; types of vocational schools; technical high schools; vocational education for girls; vocational education in rural communities; recent legislation.

A. Agricultural Education and Rural Sociology

ED. 121. *Teaching Secondary Vocational Agriculture*—First semester. Three credits. Two lectures and one laboratory period. Prerequisite, Ed. 104.

Sociological foundations of vocational education; needs of the special groups of the farming population; evolution of agricultural education, development and problems of the day class—projects, the selection of content; the use of the double class period, equipment; problems of the part-time class; problems of evening classes; directed and supervised practical work; measuring results.

ED. 121. *Practicum Teaching Secondary Vocational Agriculture*—First or second semester. Three to five credits. Credit determined by the amount and character of the work done. Ed. 104 must be offered as a prerequisite to or as a parallel of this course.

Observation; monthly outline, lesson plans; class teaching; conferences; critiques.

ED. 123. *Rural Sociology and Educational Leadership*—Second semester. Three credits. Three lectures. Open to advanced undergraduates and graduates.

The rural community—nature, history, structure, types; the community survey; present tendencies, needs, and problems of rural life; the villages and place in American social organization; special functions of the school and other institutions in relation to the needs of the rural group. This course is designed especially for persons who expect to be called upon to assist in shaping educational and other community programs for rural people.

ED. 124. *Practicum Rural Sociology*—First or second semester. Three to five credits. Credit determined by the amount and character of work done. Open to graduate students only. Prerequisite, Ed. 123.

Essentially a field course in rural sociology. Students must make a social survey of a community and write a satisfactory report of the survey.

ED. 125. *Problems and Practice in Extension Teaching*—Second semester. Three credits. Three lectures. Open to advanced undergraduates and graduates.

Given under the supervision of the Extension Service and designed to equip young men to enter the broad field of extension work. Methods of assembling and disseminating the agricultural information available for the practical farmer; administration, organization, supervision and practical details connected with the work of a successful county agent, club worker, and extension specialist. Students will be required to

gain experience under the guidance of men experienced in the respective fields. Traveling expenses for this course will be adjusted; according to circumstances, the ability of the man and the service rendered.

B. Home Economics Education

ED. 130. *Methods of Teaching Secondary Vocational Home Economics*—First semester. Three credits. Two lectures and one laboratory period. Prerequisite, Ed. 104.

History of Vocational Education; interpretation of Smith Hughes law; aims and objectives in teaching secondary vocational home economics; making of a course of study and its adaptation to the needs of the girls and the homes of the community; methods of instruction, lesson planning; use of illustrative material; improvement of Home Economics library; selection of equipment, observation and critiques.

ED. 131. *Supervised Teaching Secondary Vocational Home Economics*—First semester three to five credits. Credit determined by the amount and character of work done. Prerequisite, Ed. 130.

Observation; outline units of instruction; lesson plans; class teaching; conference and critiques.

ED. 132. *Education of Women*—First semester. Three credits. Three lectures. Open to juniors and seniors.

History of the family; its members and their relation to the home; change in women's position as affected by the progress of civilization; training for citizenship, professions and the home.

ED. 133. *Child Care and Welfare*—Second semester. Three credits. Open to juniors and seniors. Prerequisites for health teaching Foods 101 and Education 104.

Child psychology, child care and health teaching.

C. Industrial Education

ED. 140. *Industrial Education in Secondary Schools*—Either semester. Three credits. Two lectures and one laboratory period. Open to juniors and seniors. Required of seniors in Industrial Education. Prerequisite, Ed. 104.

Theory of vocational education; purposes of industrial education; types of industrial schools; vocational and trade analysis; place of auxiliary knowledge; related trade courses; industrial school population; materials and equipment; relation of the industrial teacher of the school system; problems of the related trade teacher as they arise in connection with trade analysis; lesson planning; methods of the class period; discipline; organization and management; observation and critiques.

ED. 141. *Teaching Industrial Subjects in Secondary Schools*—Either semester. Three to five credits determined by the amount and character of work done. Required of seniors in Industrial Education. Ed. 140 must be offered as a prerequisite to or as parallel with this course.

Observation; outlines; lesson plans; class teaching; conferences and critiques.

ED. 142. *History of Industrial Education*—Second semester. Two credits. Two lectures. Open to seniors and graduate students.

History of the origin and development of industrial education in the light of group needs; industrial education in the United States; development of schools; present problems in reorganization.

College of Engineering

Whether a man follows engineering as his life's work or enters other fields it is well recognized that the training received in the engineering colleges of today affords a splendid preparation that fits him for many callings in public and private life outside of the engineering profession.

The College of Engineering, which includes the Departments of Civil, Electrical and Mechanical Engineering, has been reorganized. The general purpose has been to broaden the courses of instruction the better to prepare young men to enter the public service. The large public works program contemplated in practically every state in the Union makes urgent the demand for engineers trained for such work. The public service demands the electrical and mechanical as well as the civil engineer. Maryland needs such men to carry on her great highway work and large public undertakings contemplated in various cities and counties. Such training seems pre-eminently a function of the State's University.

The subject matter of the courses is not essentially different from that usually given, but the viewpoint of the student and the application of the principles are those of public service. In order to give the time necessary both to the technical subjects and to those of a more general character, a careful revision of all courses of study was made so that the utmost time available in each semester may be used to the best advantage.

Beginning with the college year of 1921, the curriculum was arranged so as to prescribe the same courses of study for all freshmen and all sophomores, respectively, in the Engineering College. Among other advantages that accrue from such a change, is the very important one that a young man will not be called upon to decide the branch of engineering in which he will specialize until his junior year.

These changes necessitate a somewhat greater amount of preparation than formerly prescribed, and the hearty and sympathetic cooperation of the high schools of the state is asked that Maryland boys may be even better prepared for their university work to the end that they may be well qualified to enter on their life's work with the best possible university training.

Engineering research is recognized today as one of the most needed useful contributions that the engineering college can make to the state. Work of this character is under way at the University of Maryland, where, through cooperation with the U. S. Bureau of Public Roads and the Maryland State Roads Commission highway research problems are being studied, the solution of which will prove of utmost value to the people of the State. It is planned to develop as rapidly as possible this phase of the work which will have, aside from its great economic value

to the State, an important educational value due to the close contact the students will have with the live engineering problems of today.

The war brought prominently before all people the work done by the engineers and now a most important part is played by the profession in the reconstruction problems that confront, not alone the countries of Europe, but the United States as well. The opportunities for the well-trained engineer were never greater than at present. Great projects are under way and even greater contemplated, which the engineer of the future will be called upon, not only to build, but to initiate. He will require the broadest training he can secure. He must know more than merely the technique of his profession; he must be able to grasp the economic problems that underlie all great public works. It is towards such a training and understanding that the courses in the College of Engineering are being developed.

Admission Requirements

The requirements for admission to the College of Engineering are, in general, the same as elsewhere described for admission to the undergraduate departments of the University, except as to the requirements in mathematics.

The high school units that are required for entrance to the College of Engineering are as follows:

English	3
Algebra complete	1-½
Plane Geometry	1
Solid Geometry.....	½
Science	1
History	1
Electives	7
Total	15

Bachelor Degrees in Engineering

Courses leading to the degree of Bachelor of Science are offered in Civil, Electrical and Mechanical Engineering, respectively.

Not less than three-quarters of the credits required for graduation must be earned with grades of A, B or C.

Master of Science in Engineering

The degree of Master of Science in Engineering is given to those students registered in the Graduate School, who hold Bachelor Degrees in Engineering, prerequisite for which requires a similar amount of preparation and work as required for Bachelor Degrees in the Engineering College of the University of Maryland.

Candidates for the degree of Master of Science in Engineering are accepted in accordance with the procedure and requirements of the Graduate School, as will be found explained in the catalogue under the head of Graduate School.

Professional Degrees in Engineering

The degrees of Civil Engineer, Electrical Engineer or Mechanical Engineer will be granted only to graduates of the University who have obtained a bachelor's degree in engineering. The applicant must satisfy the following conditions:

1. He shall have engaged successfully in acceptable engineering work for three years.
2. His registration for a degree must be approved at least 12 months prior to the date at which the degree is sought. He shall present with his application a complete report of his engineering experience and an outline of his proposed thesis.
3. He shall present a satisfactory thesis on an approved subject.
4. He must be considered eligible by a committee composed of the Dean of the College of Engineering and the heads of the Departments of Civil, Electrical and Mechanical Engineering.

Equipment

The Engineering building is provided with lecture-rooms, recitation-rooms, drafting-rooms, laboratories and shops for all phases of engineering work.

Drafting-Rooms

The drafting-rooms are equipped for practical work. Engineering students must provide themselves with an approved drawing outfit, material and books, the cost of which during the freshman year amounts to about \$40.00

Electrical Engineering Laboratory

The equipment includes many of the various types of direct current and alternating current generators and motors, rotary converter, distribution transformers, control apparatus and the measuring instruments essential to practical electrical testing. For experimental work electrical power is obtained from engine driven units and a turbine generator; a storage battery is used for constant voltage testing purposes.

Instruments are available for measuring the candle power of lamps and for the determination of illumination intensities. The standardizing laboratory apparatus includes primary and secondary standards used in calibrating laboratory instruments.

The telephone laboratory is equipped with apparatus for experimental work on magneto and common battery systems. The radio apparatus is limited, at present, to receiving sets.

Mechanical Engineering Laboratory

The apparatus consists of Corliss and plain slide valve engines, steam turbine set, fans, pumps, indicators, gauges, feed water heaters, tachometers, injectors, flow meters, apparatus for determination of the B. T. U.

in coal, gas and liquid fuels, pyrometers, draft gauges, planimeters, thermometers and other necessary apparatus and equipment for a mechanical laboratory.

Materials Laboratory

Apparatus and equipment are provided for making standard tests on various construction materials as steel, concrete, timber and brick.

Equipment includes two 100,000 pound universal testing machines, cement testing apparatus, extensometer and micrometer gauges, and other special devices for ascertaining the elastic properties of different materials.

Special apparatus which has been designed and made in the shops of the University is also made available for student work.

Highway Research Laboratory

Certain problems in highway research have been undertaken and are actively under way, being carried on in co-operation with the U. S. Bureau of Public Roads and the State Roads Commission.

A study of the traffic over the Maryland State Highway system is in progress and a preliminary traffic map has already been prepared.

A special investigation into the elastic properties of concrete is well under way, this work directly coordinating with the general program of research problems undertaken by the U. S. Bureau of Public Roads. In connection with this study, there have been taken over sixteen hundred samples in the past two summers from the concrete roads of the State, these samples consisting of cores which were cut from the road by a special core drill apparatus mounted upon a specially equipped truck. The results that have been obtained from the testing of these concrete cores will be studied in connection with the laboratory investigations which are being made upon the fatigue of concrete. The fatigue of concrete is being studied by means of a specially devised machine which was designed and built at the University laboratory.

Machine Shops and Foundry

The machine shops and foundry are well lighted and fully equipped. Shops for wood working, metal, forge and foundry practice are provided for engineering students.

The wood working shop has full equipment of hand and power machinery.

The machine shops are equipped with various types of lathes, planers, milling machines and drill presses.

The foundry is provided with an iron cupola, a brass furnace and coke oven.

The shop equipment not only furnishes practice, drill and instruction for students, but makes possible the complete production of special apparatus for conducting experimental and research work in engineering.

Surveying Equipment

Surveying equipment for plane, topographic and geodetic surveying is provided sufficient properly to equip several field parties. A wide variety of types of instruments is provided, including domestic as well as foreign makes.

Special Models and Specimens

A number of models illustrating various types of highway construction and highway bridges are available for students in this branch of engineering.

There has also been collected a wide variety of specimens of the more common minerals and rocks from various sections of the country, particularly from Maryland.

Library

Each department contains a well-selected library of books for reference and the standard engineering magazines.

The class work, particularly in the higher courses, requires that the students consult special books of reference and current technical literature.

Curricula

The normal curriculum of each department is outlined on the following pages. Students are also required to attend and take part in the meetings of the Engineering Society and Seminar and engineering lectures.

All members of the freshman engineering class are required to attend a series of twenty to twenty-five lectures a year, the speakers, for the most part, being other than engineers.

Each student is required to hand in a very brief written summary of each lecture.

In addition to the requirements of the regular courses of study, all students in the Engineering College are required, during each of the three summer vacations, to obtain employment in some line of commercial work, preferably that which relates to engineering. Unless the student can offer some adequate reason why he has not been so employed during at least two months of each of his summer vacation periods, it may be considered sufficient cause for withholding his degree.

The proximity of the University to Baltimore and Washington, and to other places where there are great industrial enterprises, offers an excellent opportunity for engineering students to observe what is being done in their chosen field. An instructor accompanies students on all trips of inspection.

FRESHMAN YEAR

Required of all students in Engineering

	Semester:	I	II
Composition and Rhetoric (Eng. 101).....		3	3
Modern Language		4	4
Freshman Mathematics (Math. 104).....		5	5
General Chemistry (Inorg. Chem. 101).....		4	4
Engineering Drafting (Dr. 101).....		1	1
Shop and Forge Practice (Shop 101).....		1	1
Basic R. O. T. C. (M. I. 101).....		2	2
Engineering Lectures

SOPHOMORE YEAR

Required of all students in Engineering.

	Semester:	I	II
Oral English (Pub. Sp. 105 and 106).....		1	1
*Modern Language (Adv. Course).....		3	3
*Modern and Contemporary History (Hist. 101).....		3	3
Sophomore Mathematics (Math. 106).....		5	5
Physics (Phys. 101).....		5	5
Descriptive Geometry (Dr. 102).....		2	2
Machine Shop Practice (Shop 102-103, M. & E.).....		1	2
Civil.....		1	..
Basic R. O. T. C. (M. I. 102).....		2	2
Plane Surveying (Surv. 101-102) (M. & E.).....		1	..
Civil.....		1	2
Engineering Lectures

*Alternatives

CIVIL ENGINEERING CURRICULUM

JUNIOR YEAR

	Semester:	I	II
*Political Economy (Econ. 108).....		3	3
*Oral English (Pub. Sp. 107 and 108).....		2	2
*Engineering Geology (Engr. 102).....		1	1
*Engineering Mechanics (Mech. 101).....		4	3
*Engineering Mechanics (Mech. 101).....		3	3
†Advanced R. O. T. C. (M. I. 103).....		2	2
*Prime Movers (Engr. 101).....		..	5
Design Steel Structures, Elements (C. E. 102).....		..	2
*Materials of Engineering (Mech. 102).....		3	..
Advanced Surveying (Surv. 103).....		3	..
Railroads Elements (C. E. 101).....	
Engineering Lectures

* Required of all Engineering Students.

† Open as an extra course to those Engineering students only who have average grades of A or B for both Freshman and Sophomore years.

SENIOR YEAR

	Semester:	I	II
*Oral English (Pub. Sp. 109 and 110).....		1	1
*Engineering Jurisprudence (Engr. 103).....		1	..
*Public Utilities (Engr. 104).....		..	1
*Engineering Chemistry (Engr. 105).....		1	1
†Advanced R. O. T. C. (M. I. 104).....		3	3
Highways (C. E. 103).....		4	4
Design-Masonry Structures (C. E. 104).....		4	4
Design-Steel Structures (C. E. 105).....		3	3
Sanitation (C. E. 106).....		3	3
‡Railroads (C. E. 107).....		1	1
‡Sanitary Science (Public Health) (C. E. 108).....		1	1
‡Drainage and Irrigation (C. E. 109).....		1	1
Engineering Lectures

ELECTRICAL ENGINEERING CURRICULUM

JUNIOR YEAR

	Semester:	I	II
*Political Economy (Econ. 108).....		3	3
*Oral English (Pub. Sp. 107 and 108).....		2	2
*Engineering Geology (Engr. 102).....		1	1
*Engineering Mechanics (Mech. 101).....		4	3
*Materials of Engineering (Mech. 102).....		..	2
Foundry Practice (Shop 104).....		..	1
†Advanced R. O. T. C. (M. I. 103).....		3	3
Design-Machine, Elements (M. E. 101).....		1	..
Direct Currents (E. E. 101).....		5	5
*Prime Movers (Engr. 101).....		2	2
Engineering Lectures

SENIOR YEAR

	Semester:	I	II
*Oral English (Pub. Sp. 109 and 110).....		1	1
*Engineering Jurisprudence (Engr. 103).....		1	..
*Public Utilities (Engr. 104).....		..	1
*Engineering Chemistry (Engr. 105).....		1	1
†Advanced R. O. T. C. (M. I. 104).....		3	3
Alternating Currents (E. E. 102).....		5	5
Design-Electric Machine (E. E. 103).....		1	2
Electric Railways (E. E. 104).....		2	..
Telephone and Telegraphs (E. E. 105).....		..	4
Radio Telephony and Telegraphy (E. E. 106).....		4	..
Illumination (E. E. 107).....		..	2
Electric Power Transmission (E. E. 108).....		..	2
Thermodynamics (Mech. 104).....		3	..
Engineering Lectures

* Required of all Engineering Students.

† Open as an extra course to those Engineering students only who have average grades of A or B, for both Freshman and Sophomore years.

‡Alternatives.

MECHANICAL ENGINEERING CURRICULUM

JUNIOR YEAR

	Semester:	I	II
*Political Economy (Econ. 108).....		3	3
*Oral English (Pub. Sp. 107 and 108).....		2	2
*Engineering Geology (Engr. 102).....		1	1
*Engineering Mechanics (Mech. 101).....		4	3
*Materials of Engineering (Mech. 102).....		..	2
Foundry Practice (Shop 104).....		..	1
†Advanced R. O. T. C. (M. I. 103).....		3	3
Advanced Course (M. I. 103).....	
Design-Machine, Elements (M. E. 102).....		5	..
*Prime Movers (Engr. 101).....		2	2
Kinematics (Mech. 103).....		1	4
Engineering Lectures

SENIOR YEAR

	Semester:	I	II
*Oral English (Pub. Sp. 109 and 110).....		1	1
*Engineering Jurisprudence (Engr. 103).....		1	..
*Public Utilities (Engr. 104).....		..	1
*Engineering Chemistry (Engr. 105).....		1	1
†Advanced R. O. T. C. (M. I. 104).....		3	3
Design-Prime Movers (M. E. 103).....		3	3
Design-Power Plants (M. E. 104).....		2	2
Design-Pumping Machinery (M. E. 105).....		..	2
Thermodynamics (Mech. 104-105).....		3	3
Sanitation (C. E. 106).....		3	3
Factory Organization (M. E. 106).....		..	2
Mechanical Laboratory (M. E. 107).....		1	1
Heating and Ventilation (M. E. 108).....		2	..
Engineering Lectures

C. E. 101. *Elements of Railroads*—First semester. Three credits. Three lectures. Prerequisite, Surv. 102. Required of juniors in Civil Engineering.

The theory and practice of railroad surveys, alignment and earthwork. Preliminary steps toward complete plans for a short railroad.

C. E. 102. *Elements of Design of Steel Structures*—Second semester. Five credits. Four lectures and one laboratory period. Prerequisite, Mech. 101, 102. Required of juniors in Civil Engineering.

Design of steel beams and columns. Analysis of stresses in roof trusses, plate girders, bridge trusses and steel buildings. The preliminary steps toward complete design of these structures.

* Required of all Engineering students.

† Open as an extra course to those Engineering students only who have average grades of A or B for both Freshman and Sophomore years.

C. E. 103. *Highways*—The year. Eight credits. Three lectures and one laboratory period first semester. Two lectures and two laboratory periods second semester. Required of seniors in Civil Engineering.

Location, construction and maintenance of roads and pavements. Highway contracts and specifications, estimates and costs, highway work, highway legislation, highway economics and highway transportation.

The course will include, in addition to lecture and class room work, preparation of plans and specifications for special projects connected with highways.

C. E. 104. *Design of Masonry Structures*—The year. Eight credit hours. Three lectures and one laboratory period. Prerequisite, Mech. 101. Required of seniors in Civil Engineering.

The theory and practice of the design of structures of stone and of reinforced concrete; with applications to beams, slabs, columns, retaining walls, dams, arches and bridges. The preparation of plans and bills of material.

C. E. 105. *Design of Steel Structures*—The year. Six credits. Two lectures and one laboratory period. Prerequisite, C. E. 102. Required of seniors in Civil Engineering.

The complete design and detailing of steel structures, a continuation of C. E. 102.

C. E. 106. *Sanitation*—The year. Six credits. Three lectures. Prerequisite, Mech. 101, 102. Required of seniors in Civil Engineering.

Methods of estimating consumption and designing water supply and sewerage systems.

C. E. 107. *Railroads*—The year. Two credits. One laboratory period. Prerequisite, C. E. 101. Alternative for seniors in Civil Engineering.

The theory and practice of railroad design, construction, maintenance and economics; a continuation of C. E. 101. Field and drafting room work consists of a reconnaissance and survey of a short railroad and preparation of the map, profiles and estimates.

C. E. 108. *Sanitary Science (Public Health)*—The year. Two credit hours. One laboratory period. To be taken co-ordinately with C. E. 109-110. Alternative for seniors in Civil Engineering.

State and municipal sanitary laws, organization, and functions of state and municipal health departments, public health surveys. Also in co-ordination with C. E. 109-110, complete plans are prepared for water supply and sewerage disposal systems for a given community.

C. E. 109. *Drainage and Irrigation*—The year. Two credit hours. One laboratory period. Prerequisite, Mech. 101, 102. Alternative for seniors in Civil Engineering.

The application of engineering principles to the design and construction of drainage and irrigation works. Field and drafting room work consists of surveying, designing and mapping of a proposed drainage project.

ELECTRICAL ENGINEERING

E. E. 101. *Direct Currents*—The year. Ten credits. Three lectures and two laboratory periods. Prerequisite, Phys. 101, 102.

Principles of design, construction and operation of direct current generators and motors and direct current control apparatus. The construction, characteristics and operation of primary and secondary batteries and the auxiliary control equipment.

Experiments on the calibration of laboratory instruments, the manipulation of precision instruments, battery characteristics, and the operation and characteristics of direct current generators and motors.

E. E. 102. *Alternating Currents*—The year. Ten credits. Three lectures and two laboratory periods. Prerequisite, E. E. 101-102.

Analytical and graphical solution of problems on single phase and polyphase circuits; construction, characteristics and operation of all types of alternating current generators and motors; switchboard appliances, the use of the oscillograph; alternating current power measurements.

E. E. 103. *Electric Machine Design*—The year. Three credits. One laboratory period first semester; two laboratory periods second semester. Prerequisite, E. E. 101, 102 and M. E. 101.

Materials of construction and design of the electric and magnetic circuits of direct current generators and motors, principles of design of the electric and magnetic circuits of alternating current generators, motors and transformers.

E. E. 104. *Electric Railways*—First semester. Two credits. Two lectures. Prerequisite, E. E. 101, 102.

Traffic studies, train schedules, motor characteristics and the development of speed-distance and power-time curves, systems of control, motors and other railway equipment, electrification system for electric railways including generating apparatus, transmission lines, substations and distribution of electrical energy for car operation; electrification of steam roads and application of signal systems, problems in operation from the selection of proper car equipment to the substation apparatus.

E. E. 105. *Telephones and Telegraphs*—Second semester. Four credits. Three lectures and one laboratory period. Prerequisite, E. E. 101.

History and principles of magneto telephone and variable resistance transmitter, carbon transmitter, telephone receiver, induction coils and calling equipment. These components of the telephone then are studied as a complete unit in the local battery and common battery telephones. Magneto and common battery switchboards used in telephone exchanges, automatic telephones, and the operation of simple, duplex and quadruplex telegraphy.

In the laboratory the units are assembled and operated.

E. E. 106. *Radio Telegraphy and Telephony*—First semester. Four credits. Two lectures and two laboratory periods. Prerequisite, E. E. 101.

Principles of radio telegraphy and telephony, design, construction and operation of transmitting and receiving apparatus and special study of the use of the vacuum tube for short wave transmitting and receiving. Experiments include radio frequency measurements and the testing of various types of receiving circuits.

E. E. 107. *Illumination*—Second Semester. Two credits. Two lectures. Prerequisite, E. E. 103, 104.

Series systems of distribution, methods of street lighting, calculation of voltage drop, regulation, weights of wire and methods of feeding parallel systems, principles and units used in illumination problems, lamps and reflectors, candle power measurements of lamps, measurement of illumination intensities and calculations for illumination of laboratories and class rooms.

E. E. 108. *Electric Power Transmission*—Second semester. Two credits. Two lectures. Prerequisite, E. E. 103 and 104.

Survey of the electrical equipment required in central stations and substations, transmission of electrical power, practical problems illustrating the principles of installation and operation of power machinery.

DRAFTING

DR. 101. *Engineering Drafting*—The year. Two credits. One laboratory period. Required of all freshmen in Engineering.

Freehand Drawing—Lettering, exercises in sketching of technical illustrations and objects, proportion and comparative measurements.

Mechanical Drawing—Use of instruments, projections and working drawings, drawing to scale in pencil and in ink, topographic drawing, tracing and blue printing.

DR. 102. *Descriptive Geometry*—The year. Four credits. Two laboratory periods. Required of all sophomores in Engineering.

Orthographic projection as applied to the solution of problems relating to the point, line and plane, intersection of planes with solids and development. Generation of surfaces; planes, tangent and normal to surfaces; intersection and development of curved surfaces. Shades and shadows, perspective, map projection.

GENERAL ENGINEERING

ENGR. 101. *Prime Movers*—The year. Four credits. Two lectures. Prerequisite, Math. 106. Required of all juniors in Engineering.

Salient features of the operation of steam, gas, hydraulic and electric prime movers and pumps. Comparison of types of each, methods of assembling or setting up in place for operation. Service tests.

ENGR. 102. *Engineering Geology*—The year. Two credits. One laboratory period. Lectures and field trips.

Study of common rocks and minerals, geologic processes and conditions affecting problems of water supply, bridge, railroad and highway con-

struction, dams and reservoirs, tunnels, canals, river and harbor improvements, irrigation works, and rock excavation.

ENGR. 103. *Engineering Jurisprudence*—First semester. One credit. Seminar course. Required of all seniors in Engineering.

A study of the fundamental principles of law relating to business and to engineering; including contracts, agency, sales, negotiable instruments, corporations and common carriers. These principles are then applied to the analysis of general and technical clauses in engineering contracts and specifications.

ENGR. 104. *Public Utilities*—Second semester. One credit. One lecture. Required of all seniors in Engineering. Prerequisite, Econ. 105.

The development of public utilities, franchises, functions, methods of financing and control of public utilities. Service standards and their attainment in electric, gas, water, railway, and other utilities. The principles that have been adopted by the courts and public service commissions for the evaluation of public utilities for rate making and other purposes.

ENGR. 105. *Engineering Chemistry*—The year. Two credits. One laboratory period second semester. Prerequisite, Math. 106. Required

The value of fuels, coal, oils and gases, from their chemical analysis. The significance of flue gas analysis. Comparison of specifications, particularly chemical requirements, of various states, manufacturers and large corporations for fuels, lubricating oils and paints.

MECHANICS

MECH. 101. *Engineering Mechanics*—The year. Seven credits. Three lectures and one laboratory period first semester; two lectures and one laboratory period second semester. Prerequisite, Math. 106. Required of all juniors in Engineering.

Applied Mechanics—The analytical study of statics dealing with the composition and resolution of forces, moments and couples, machines and the laws of friction, dynamics, work, energy and the strength of materials.

Graphic Statics—The graphic solution of problems in mechanics, center of gravity, moments of inertia and determination of stresses in frame structures.

Elements of Hydraulics—Flow of water in pipes, through orifices and in open channels. Determination of the co-efficient of discharge, velocity and contraction in pipes and orifices.

MECH. 102. *Materials of Engineering*—Second semester. Two credits. Two laboratory periods. Required of all juniors in Engineering.

The composition, manufacture and properties of the principal materials used in engineering and of the conditions that influence their physical characteristics. The interpretation of specifications and of standard tests. Laboratory work in the testing of steel, wrought iron, timber, brick, cement and concrete.

MECH. 103. *Kinematics*—The year. Five credits. One lecture first semester; four lectures second semester. Required of juniors in Mechanical Engineering. Prerequisite, Math. 106.

The theory and practice of the kinematics of machinery, as applied to ropes, belts, chains, gears and gear teeth, wheels in trains, epicyclic trains, cams, linkwork, parallel motions. Miscellaneous mechanisms and aggregate combinations.

MECH. 104. *Thermodynamics*—First semester. Three credits. Three lectures. Prerequisites, Phys. 101 and 102, Eng. 101 and 102. Required of seniors in Mechanical and Electrical Engineering.

MECH. 105. *Thermodynamics*—Second semester. Three credits. Three lectures. Prerequisite, Mech. 106. Required of seniors in Mechanical Engineering.

Thermodynamics as applied to properties of gases, cycles of heat engines using gages. Properties of vapors. Entropy. The internal combustion engine. The steam turbine. Flow of fluids, and the application of thermodynamics to compressed air and refrigerating machinery.

MECHANICAL ENGINEERING

M. E. 101. *Elements of Machine Design*—First semester. One credit. One laboratory period. Prerequisite, Math. 106. Required of juniors in electrical engineering.

Empirical design of machine parts.

M. E. 102. *Elements of Machine Design*—First semester. Five credits. Three lectures and two laboratory periods. Prerequisite, Math. 106. Required of juniors in mechanical engineering.

The application of the principles involved in determining the proportions and forms of machine parts. The design of bolts, screws, shafting and gears.

M. E. 103. *Design of Prime Movers*—The year. Six credits. One lecture and two laboratory periods first semester; two lectures and one laboratory period second semester. Prerequisite, M. E. 102. Required of seniors in mechanical engineering.

Analysis of the stresses in gas and steam engines. Proportioning the essential parts and estimating the cost of each. The steam boiler; its design and cost.

M. E. 104. *Design of Power Plants*—The year. Four credits. One lecture and one laboratory period. Prerequisites, Engr. 101, 102 and M. E. 102. Required of seniors in mechanical engineering.

The design of a complete power plant, including the layout of building and installation of equipment. The selection of types and capacities of the various units required.

M. E. 105. *Design of Pumping Machinery*—Second semester. Two credit hours. One lecture and one laboratory period. Prerequisite, M. E. 102 and Mech. 101, 102. Required of seniors in mechanical engineering.

Elementary design of double acting steam pumps and centrifugal pumps. The air lift and the hydraulic ram.

M. E. 106. *Factory Organization*—Second semester. Two credits. Two lectures. Required of seniors in mechanical engineering.

The practice, in both organization and administration, dealing with factory location and design in their relation to productive capacity, cost and finances, rate fixing, time studies, wage systems and the underlying conditions that may affect the establishment of any system of factory organization and administration.

M. E. 107. *Mechanical Laboratory*—The year. Two credits. One laboratory period. Prerequisites, Engr. 101, 102; Mech. 101, 102 and Mech. 103. Required of seniors in mechanical engineering.

Calibration of instruments, gauges, indicator springs, planimeters, steam, gas and water meters.

Indicated and brake horsepower of steam and internal combustion engines, setting of plain valves, corliss valves. Tests for economy and capacity of boilers, engines, turbines. Pumps and other prime movers. Feed water heaters, condensers; B. T. U. analysis of solid, gaseous and liquid fuels and other complete power plant tests.

M. E. 108. *Heating and Ventilation*—First semester. Two credits. Two lectures. Prerequisites, Engr. 101, 102 and Mech. 101, 102. Required of seniors in mechanical engineering.

The principles and methods of construction in use in various systems of heating and ventilating; the design, erection and operation of heating plants.

SHOP

SHOP 101. *Shop and Forge Practice*—The year. Two credits. One laboratory period. Required of all freshmen in Engineering.

The use and care of wood working tools, exercise in sawing, planing, mortising, tenoning and laying out work from blueprints. Principles of pattern making with sufficient foundry practice to demonstrate the uses of pattern making. Forging of iron and steel, welding and making of steel tools.

SHOP 102. *Machine Shop Practice*—First semester. One credit. One laboratory period. Required of all sophomores in Engineering. Prerequisite, Shop 101.

SHOP 103. *Machine Shop Practice*—Second semester. Two credits. Two laboratory periods. Required of sophomores in mechanical and electrical engineering. Prerequisite, Shop 102.

Study and practice with various machines used in machine shops, principles of turning, planing, drilling, screw cutting and filing.

SHOP 104. *Foundry Practice*—Second semester. One credit. One laboratory period. Required of juniors in mechanical engineering. Prerequisite, Shop 103.

Molding in brass and iron. Core making. The cupola and its managements. Lectures on selection of iron by fracture, fuels and the mixing and melting of metals.

SURVEYING

SURV. 101. *Plane Surveying*—First semester. One credit. Lecture and laboratory work. Required of all sophomores in engineering. Prerequisite, Math. 101.

SURV. 102. *Plane Surveying*—Second semester. Two credits. Lecture and laboratory work. Required of sophomores in Civil Engineering.

The theory and practice of plane surveying; including the use and adjustment of the transit, level, plane table and minor surveying instruments. Solution of practical problems in giving lines and grades for buildings, shafting and foundations, and in laying out curves. The computation of area and of earthwork, and the principles of plan and map making and map reading.

SURV. 103. *Advanced Surveying*—First semester. Three credits. One lecture and two laboratory periods. Prerequisite Surv. 101-102. Required of juniors in Civil Engineering.

Practical astronomy and geodetic surveying. The determination of latitude, longitude and azimuth by stellar and by solar observations. Base line measurement and precise triangulation. City surveying. Hydrographic surveying.

The Graduate School

Graduate work is offered, under the supervision of the Dean of the Graduate School by competent members of the various faculties of instruction and research. These constitute the Faculty of the Graduate School.

The general administrative functions of the faculty are delegated to the Dean and Secretary of the School and a Graduate Council.

Work in accredited research laboratories of the U. S. Department of Agriculture and other local national research agencies under competent supervision is accepted, when previously arranged, as work in residence for part of the requirement. These laboratories are located in easy daily reach of the University. When previously arranged, certain approved courses, satisfactorily completed, at the American University, will also be accepted for part of the residence requirement for higher degrees.

Admission and Registration

Admission to the Graduate School is open to all graduates of this and other standard colleges and universities. Before entering upon graduate work all applicants must present evidence that they are qualified by their previous work to pursue the courses desired. Admission to the Graduate School does not necessarily imply admission to candidacy for a degree.

Every student is required to register at the office of the Graduate School at the beginning of each semester. This applies to all students doing graduate work in the University even though they are not candidates for degrees. The student is given a registration card for the semester on which, after consultation with the professor in charge of the major subject, the program of work is entered. This must be approved by the head of the major department and by the Dean before registration can be completed.

Admission to Candidacy for a Degree

The application for admission to candidacy for either the Master's or the Doctor's degree is made on application blanks which are obtained at the office of the Graduate School. These applications are first approved by the professor in charge of the major subject after consultation with the professors in charge of minor subjects, and then passed upon by the Graduate Council. An official transcript of the student's undergraduate course must accompany the application.

Each candidate for the Master's degree is required to make application for admission to candidacy at least four months prior to the date at which the degree is sought, but not until at least the equivalent of one semester's work has been completed. Candidates for the Doctor's degree must be admitted to candidacy at a date not later than the beginning of the academic year in which the degree is sought.

The Master's Degrees

The degree of Master of Science, Master of Arts, or Master of Science in Engineering, will be conferred upon resident graduates who meet the following requirements:

1. The candidate must have received the Bachelor's degree from a college of sufficiently high standing and must have the necessary prerequisites for the field of advanced work chosen.
2. During a period of at least one academic year the candidate must pursue a course of approved graduate study. Such a course is equivalent to 30 semester credits, including a thesis approved by a committee of the Graduate Faculty. From 10 to 12 credits must lie outside the major subject and form a coherent group of courses, intended to supplement and support the major work. Graduate students must elect courses designated in the catalogue for graduates or for advanced undergraduates and graduates. In special cases a student may with the approval of the professor in charge of the major subject, and the Dean, elect for graduate credit one or two courses not listed for graduates. For such courses only partial graduate credit will be allowed, or extra work will be required for full graduate credit.
3. The candidate must pass a final oral examination on all graduate work including the thesis.

Doctor of Philosophy

1. As prerequisites for admission to candidacy for the Doctor's degree the candidate must be a graduate of a standard college, must have a reading knowledge of French and German, and the necessary basic training in the chosen field for advanced work.
2. Three years of graduate study will usually be required. The first two of these years may be spent in other institutions offering standard graduate work. On a part-time basis the time needed will be correspondingly increased. The degree is not given merely as a certificate of residence and work, but is granted only upon sufficient evidence of high attainments in scholarship and ability to carry on independent research in the special field in which the major work is done.
3. The candidate must select a major and one or two closely related minor subjects, constituting a single field of research.
4. The candidate must present a dissertation within the field of research selected. This must be in the hands of the Dean of the Graduate School in printed or typewritten form at least two weeks before the time at which degrees are granted.
5. The candidate must pass a final oral examination in the major and minor subjects. The examination will be given by a committee appointed by the Dean.

Advanced Professional Degrees in Engineering

The degrees of Civil Engineer, Electrical Engineer or Mechanical Engineer will be granted only to graduates of this University who have

obtained a Bachelor's degree in engineering. The applicant must satisfy the following conditions:

1. He shall have been engaged successfully in acceptable engineering work for three years.
2. His registration for a degree must be approved at least 12 months prior to the date at which the degree is sought. He shall present with his application a complete report of his engineering experience and an outline of his proposed thesis.
3. He shall present a satisfactory thesis on an approved subject.
4. He must be considered eligible by a committee composed of the Dean of the College of Engineering and the heads of the Departments of Civil, Electrical and Mechanical Engineering.

Graduate Fees

Each graduate student is subject to a matriculation fee of \$10.00, a fixed charge of \$1.50 per semester credit and a diploma fee of \$10.00.

Graduate Work in the Summer

Work done in the Summer Session of the University under the rules and regulations of the Graduate School may be counted as residence toward a graduate degree. A student may satisfy the requirements for the Master's degree by attending the Summer School for four summers and submitting a satisfactory thesis.

Fellowships and Graduate Assistantships

A number of fellowships and graduate assistantships have been established by the University. They are open to graduates of standard colleges and universities. All applications for both fellowships and graduate assistantships should be filed with the Dean of the Graduate School not later than May 15 of each year. Blanks for this purpose may be obtained from the office of the Graduate School. Applications must be accompanied by sufficient evidence of necessary training and ability to pursue with profit the graduate work desired. Such evidence will include testimonials from instructors and an official transcript of the undergraduate work.

The fellowships are worth \$500 and it is possible to complete the requirements for the Master's degree in one academic year. In certain cases fellows may be required to spend two or three summer months in addition to the nine months of the college year. Each fellow is expected to give a limited portion of his time to instruction or perform equivalent prescribed duties for his major department.

The stipend attached to the graduate assistantships is \$1000 to \$1500 per annum and is fixed by the amount of service given to the University. Several \$1000 research assistantships are offered by the Experiment Station and the service required is in connection with research projects. The minimum time for the Master's degree is two years.

Graduate students holding appointments as fellows, graduate assistants and instructors are exempt from all fees except the diploma fee.

The College of Home Economics

Research into the sciences and the development of industries, art and professions has so changed the philosophy of our educational system that it is now recognized that any educational system must include training of a technical nature. It must encourage the student's natural desire for work of a productive nature with a vital connection between theory and practice. These views have now been generally accepted and the result is noted in the combination of vocational, technical and scientific work with the general studies to form a new course of study for young men and women.

The subjects taught in home economics are designed to fit young women to be capable workers and home makers in whatever sphere of life they may enter. The knowledge they gain from these subjects should give them contentment, industry, order and a womanly feeling of independence and responsibility.

The courses of instruction given are planned to meet the needs of three classes of students: (1) those students who desire a knowledge of the general facts and principles of home economics; (2) those students who wish to make a specialty of home economics for the purpose of teaching the subject in secondary schools and colleges; (3) those who are interested in certain phases of home economics which deal with the work of the dietitian or of the institutional manager.

Degrees

The degree of Bachelor of Science is conferred for the satisfactory completion of four years of prescribed courses, or 136 semester hours.

Departments

For administrative purposes and for ease of instruction the College of Home Economics is organized into the departments of: Foods and Cookery, Textiles and Clothing, and of Institutional and Home Management.

Equipment

In addition to the usual class room and laboratory facilities, the College maintains a newly built and equipped practice house in which the students will keep house for a period of six weeks during their senior year.

Curriculum in Home Economics

All students registered in the College of Home Economics are required to take the same work during the first two years. At the beginning of the third they may elect to continue with General Home Economics, in which case the following outline of courses has been planned, or they may elect to specialize in a particular department.

The heads of the various departments, together with the students wishing to specialize, will outline such courses.

HOME ECONOMICS

FRESHMAN YEAR	Semester:	I	II
Composition and Rhetoric (Eng. 101).....		3	3
Inorganic Chemistry (Inorgan. 101-A or 101-B).....		4	4
Zoology (Zool. 101).....		4	..
General Botany (Gen. Botany 101).....		..	4
Language		4	4
Physical Education (Phys. Ed. 101).....		2	2
Library Methods (L. S. 101).....		1	..
		—	—
		18	17

SOPHOMORE YEAR	Semester:	I	II
Organic Chemistry (Organ. Chem. 102).....		3	..
Chemistry of Foods (Ag. Chem. 102).....		..	3
Public Speaking (Public Speaking 101-102).....		1	1
Elementary Foods (Foods 101).....		3	3
Art (Art 101).....		3	..
Costume and Design (Art 102).....		..	3
Textiles (Textiles 101).....		2	..
Garment Construction (Cloth 101).....		..	2
Language or History.....		3	3
Physical Education (Phys. Ed. 102).....		2	2
		—	—
		17	17

JUNIOR YEAR	Semester:	I	II
General Bacteriology (Bact. 101).....		3	..
Physics (Physics 103).....		..	4
Drafting and Elementary Dress Design (Cloth. 102).....		3	..
Dressmaking (Cloth. 103).....		..	3
Home Architecture and Interior Decoration (Art 104)....		3	..
Millinery (Cloth 104).....		..	3
Nutrition (Foods 102-103).....		3	3
Chemistry of Textiles (Ag. Chem. 103).....		2	..
Electives			

SENIOR YEAR	Semester:	I	II
Home Management and Mechanics of the Household (H. M. 101)		3	..
Practice House (H. M. 102).....		..	4
Marketing and Buying (H. M. 103).....		3	..
Child Care and Welfare.....		..	3
Preservation and Demonstration (Foods 104).....		3	..
Electives			

HOME ECONOMICS

Description of Courses

FOODS 101. *Elementary Foods*—The year. Six credits. One lecture and two laboratory periods. Prerequisite, Inorganic Chemistry.

Principles and processes of Cookery. Production and composition of foods. Planning and serving of meals.

FOODS 102. *Nutrition*—First semester. Three credits. Three lectures. Required of all home economics students. Prerequisite, Foods 101 and Organic Chemistry.

Food requirements and metabolism. Diets for the normal person.

FOODS 103. *Nutrition*—Second semester. Three credits. One lecture and two laboratory periods. Prerequisite, Foods 102.

Diets and metabolism of the abnormal person; invalid cookery; feeding of children.

FOODS 104. *Preservation and Demonstration*—First semester. Three credits. One lecture and two laboratory periods. Prerequisite, Foods 101.

Canning and preserving; practice in giving public demonstrations.

FOODS 105. *Advanced Foods*—Second semester. Three credits. One lecture and two laboratory periods. Prerequisite, Foods 101.

Experimental work in foods and cookery; fancy cookery; catering.

H. M. 101. *Home Management and Mechanics of the Household*—First semester. Three credits. Three lecture periods.

The operation and maintenance of the household; its furnishings and equipment. Lectures on heating, lighting, plumbing, wood finishes and all mechanics of the household, as applied to average rural or city dwelling, will be given by the staff of the College of Engineering.

H. M. 102. *Practice House*—Second semester. Four credits. Six weeks experience in keeping house in a household of six students.

H. M. 103. *Marketing and Buying*—First semester. Three credits. Two lectures and one laboratory period.

Food budgets and household accounts. Selection, purchasing and care of foods for the family. Lectures will be given by specialists in the Department of Dairy Husbandry Animal Husbandry and Horticulture, in the College of Agriculture, on the choice and care of dairy products, meats, vegetables and fruits.

H. M. 104. *Institutional Management*—The year. Six credits. Three lectures each semester. Prerequisites, Foods 101 and Home Management 101.

General Institutional organization including dining halls, dormitories and laundries.

H. M. 105. *Home Nursing and First Aid*—Second semester. Three credits.

Instruction in domestic emergencies and first aid, and in the simple procedure in the home care of the sick.

CLOTH. 101. *Garment Construction*—Second semester. Two credits. Two laboratory periods. Prerequisite, Textiles 101.

Fundamental stitches; darning and patching; practice in hand and machine sewing; use of machine attachments; study of commercial patterns.

CLOTH. 102. *Drafting and Elementary Dress Design*—First semester. Three credits. One lecture and two laboratory periods. Prerequisite, Clothing 101 or equivalent.

Drafting, cutting, fitting and designing of patterns. Construction of woolen dress from pattern designed in class. Clothing Economics.

CLOTH. 103. *Dressmaking*—Second semester. Three credits. Three laboratory periods. Prerequisite, Clothing 102.

Construction of silk dress; made over dress; dinner or evening gown.

CLOTH. 104. *Millinery*—Second semester. Three credits. Three laboratory periods. Prerequisite, Clothing 101.

Millinery stitches and simple trimmings; drafting of patterns for hats; making and covering of frames; making hats in velvet, silk, straw and transparent materials; renovation of materials.

CLOTH. 105. *Advanced Dressmaking*—Second semester. Three credits. One lecture and two laboratory periods. Prerequisite, Clothing 103.

Designing and dress construction continued.

TEXTILES 101. *Textiles*—First semester. Two credits. One lecture and laboratory period.

History of textile fibers, identification of textile materials; variation of weave in regard to beauty and strength; use and value of fibers for clothing and household furnishings.

TEXTILES 102. *Chemistry of Textiles*—Second semester. Two credits. One lecture and one laboratory period. Prerequisite, Textiles 101.

Art Store Management—The year. Six credits. Three laboratory periods. Prerequisite, Clothing 103 and Art. 103.

Buying, making and selling of art materials; keeping accounts; principles of salesmanship.

ART. 101. *Composition and Design*—First semester. Three credits. Three laboratory periods.

Space division and space relation; color schemes and exercises; original designs in which lines, values, and colors are put together to produce fine harmony; perspective principles.

ART. 102. *Costume Design*—Second semester. Three credits. One lecture and two laboratory periods. Prerequisite, Art. 101.

Appropriate dress; application of color, harmony and proportion of parts to costumes designed in ink and water color; history of costume.

ART. 103. *Art and Handicraft*—Second semester. One credit. One laboratory period.

Applied design in embroidery, lace and stencils.

ART. 104. *Home Architecture and Interior Decoration*—First semester. Three credits. Two lectures and one laboratory period. Prerequisite, Art. 101.

Styles of architecture; application of color in home decoration; furnishings from a sanitary, economical and artistic point of view.

ART. 105. *Basketry*—First semester. One credit. One laboratory period.

A study of the various weaves and their application in reed pieces; manipulation of materials in raffia work.

Students majoring in Textiles and Clothing are required to take the following courses in addition to the general home economics schedule.

Junior Year

CLOTH. 105. *Advanced Dressmaking*—First semester. Three credits.

ART. 103. *Art and Handicraft*—Second semester. Two credits.

Senior Year

Art Shop Management—The year. Six credits.

The School of Law

THE FACULTY COUNCIL

HON. HENRY D. HARLAN, A.M., LL.B., LL.D., Dean.

HON. ALFRED S. NILES, A.M., LL.B.

HON. JOHN C. ROSE, LL.B., LL.D.

RANDOLPH BARTON, JR., Esq., A.B., LL.B.

EDWIN T. DICKERSON, Esq., A.M., LL.B., Secretary.

HON. JAMES P. GORTER, A.M., LL.D.

CHARLES McHENRY HOWARD, Esq., A.B., LL.B.

HON. MORRIS A. SOPER, A.B., LL.B.

The 1923-4 session of the Law School will commence on Monday, September 17, 1923.

While the first faculty of law of the University of Maryland was chosen in 1813, and published in 1817 "A Course of Legal Study Addressed to Students and the Profession Generally," which the North American Review pronounced to be "by far the most perfect system for the study of law which has ever been offered to the public," and which recommended a course of study so comprehensive as to require for its completion six or seven years, no regular school of instruction in law was opened until 1823. This was suspended in 1836 for lack of proper pecuniary support. In 1869 the Law School was organized, and in 1870 regular instruction therein was again begun. From time to time the course has been made more comprehensive and the staff of instructors increased in number. Its graduates now number more than two thousand, and included among them are a large proportion of the leaders of the Bench and Bar of the State and many who have attained prominence in the profession elsewhere.

The Law School Building adjoins the Medical School and part of its equipment is a large library maintained for the use of the students, which contains carefully selected text-books on the various subjects embraced in the curriculum, reports of American and English Courts, digests and standard encyclopedias. No fee is charged for the use of the library. Other libraries also are available for students.

Courses of Instruction

The courses of instruction in the Law School extend through three scholastic years of thirty-five weeks each, with an average of at least ten hours of classroom work each week, and aim to present a general

and complete view of the science of law, with reference not only to its growth by judicial exposition, but also to the principles which have been engrafted upon it by positive enactment. The course of study embraces both the theory and the practice of law, and is designed thoroughly to equip the student for the practice of his profession when he attains the Bar.

Scientific education is afforded in the principles of the Common Law, Equity, the Statutory Law of the State of Maryland and the Public Law of the United States.

The Law School endeavors to uphold a high standard of legal education and it aims to give the student a comprehensive view of the whole field of the law and particularly a knowledge of the fundamentals of American Law, in order to enable him to pass the examination for the Bar, if he has chosen the legal profession for his life work, or to fit him to care properly for his business interests if he desires legal education merely as the accomplishment of the well-equipped man of business or man of culture.

Instruction is given by discussion of assigned cases and by lectures. The lectures are intended to present all the leading principles of the common law applicable to the subject, and the modification of the common law by statute, and to give illustrations of the application of the common and statute law. Special attention is given to the statutes in force in Maryland, and to peculiarities of the law in that State, where there are such; but the reasons for these statutory modifications and local peculiarities are explained so that the student may in a short time acquaint himself with the local peculiarities of the law in any State in which he may practice.

Readings from text-books and adjudicated cases are assigned on the subjects treated in the lectures.

It will be seen that the full course of study extends over three years and as the Faculty is satisfied that students, who have not made considerable progress in the law before entering the Law School, would do themselves and the school an injury by attempting to graduate in a shorter period, no student will be permitted to receive the degree of LL.B. until after three full years of study at this school, or if admitted to advanced standing, until after one year of residence and study at this school.

Requirements for Admission

Applicants for admission to the Law School must present evidence of good moral character, and must have completed at the time of admission to the school a four years' high school curriculum or such a course of preparation as would be required for admission to the principal colleges and universities in Maryland.

The School of Medicine AND COLLEGE OF PHYSICIANS AND SURGEONS

MEDICAL COUNCIL

ARTHUR M. SHIPLEY, M.D., Sc.D.
GORDON WILSON, M.D.
HARRY FRIEDENWALD, A.B., M.D.
WILLIAM S. GARDNER, M.D.
STANDISH McCLEARY, M.D.
JULIUS FRIEDENWALD, A.M., M.D.
J. M. H. ROWLAND, M.D.
ALEXIUS McGLANNAN, A.M., M.D.
BARTGIS McGLONE, A.B., Ph.D.
HUGH R. SPENCER, M.D.
H. BOYD WYLIE, M.D.
CARL L. DAVIS, M.D.
WILLIAM H. SCHULTZ, Ph.B., Ph.D.
MAURICE C. PINCOFFS, S.B., M.D.

BOARD OF INSTRUCTION

EMERITUS PROFESSORS

RANDOLPH WINSLOW, A.M., M.D., LL.D.....Surgery
SAMUEL K. MERRICK, M.D.....Rhinology and Laryngology
GEORGE W. DOBBIN, A.B., M.D.....Obstetrics
HIRAM WOODS, A.M., M.D.....Ophthalmology and Otology
CHARLES G. HILL, A.M., M.D.....Psychiatry
A. C. POOLE, M.D.....Anatomy
J. FRANK CROUCH, M.D.....Clinical Ophthalmology and Otology
CHARLES O'DONOVAN, A.M., M.D., LL.D..Clinical Medicine and Pediatrics
JOHN R. WINSLOW, A.B., M.D.....Rhinology and Laryngology
EDWARD N. BRUSH, M.D.....Psychiatry
JOHN C. HEMMETER, M.D., Ph.D., Sc.D., LL.D.....Clinical Medicine

L. E. NEALE, M.D., LL.D., Professor of Obstetrics.
 ARTHUR M. SHIPLEY, M.D., Sc.D., Professor of Surgery.
 GORDON WILSON, M.D., Professor of Medicine.
 WILLIAM ROYAL STOKES, M.D., Sc.D., Professor of Bacteriology.
 HARRY FRIEDENWALD, A.B., M.D., Professor of Ophthalmology and Otology.
 ARCHIBALD C. HARRISON, M.D., Professor of Surgery.
 CARY B. GAMBLE, JR., A.M., M.D., Professor of Medicine.
 WILLIAM S. GARDNER, M.D., Professor of Gynecology.
 STANDISH MCCLEARY, M.D., Professor of Pathology and Clinical Medicine.
 JULIUS FRIEDENWALD, A.M., M.D., Professor of Gastro-Enterology.
 J. M. H. ROWLAND, M.D., Professor of Obstetrics and Dean of the Faculty.
 ALEXIUS MCGLANNAN, A.M., M.D., Professor of Surgery.
 BARTGIS MCGLONE, A.B., Ph.D., Professor of Physiology.
 H. R. SPENCER, M.D., Professor of Pathology.
 H. BOYD WYLIE, M.D., Professor of Biological Chemistry.
 CARL L. DAVIS, M.D., Professor of Anatomy.
 WM. H. SCHULTZ, Ph.B., Ph.D., Professor of Pharmacology.
 MAURICE C. PINCOFFS, S.B., M.D., Professor of Medicine.
 THOMAS C. GILCHRIST, M.R.C.S., L.S.A., M.D., Professor of Dermatology.
 G. MILTON LINTHICUM, A.M., M.D., Professor of Diseases of the Rectum and Colon.
 W. B. PERRY, M.D., Professor of Clinical Gynecology.
 TILGHMAN B. MARDEN, A.B., M.D., Professor of Histology and Embryology.
 J. MASON HUNDLEY, M.D., Professor of Clinical Gynecology.
 R. TUNSTALL TAYLOR, A.B., M.D., Professor of Orthopedic Surgery.
 JOS. E. GICHNER, M.D., Professor of Clinical Medicine and Physical Therapeutics.
 CHARLES W. McELFRESH, M.D., Professor of Clinical Medicine.
 IRVING J. SPEAR, M.D., Professor of Neurology and Clinical Psychiatry.
 C. HAMPSON JONES, M.D., C.M. (Edinburgh), M.D., Professor of Hygiene and Public Health.
 JOHN RUHRAH, M.D., Professor of Pediatrics.
 CHARLES F. BLAKE, A.M., M.D., Professor of Proctology.
 FRANK DYER SANGER, M.D., Professor of Diseases of Throat and Nose.
 S. GRIFFITH DAVIS, A.B., M.D., Professor of Anaesthesia.
 G. CARROLL LOCKARD, M.D., Professor Clinical Medicine.
 CHARLES E. BRACK, Ph.G., M.D., Professor of Clinical Obstetrics.
 HARVEY G. BECK, M.D., Sc.D., Professor of Clinical Medicine.
 ALBERTUS COTTON, A.M., M.D., Professor of Orthopedic Surgery and Roentgenology.
 ANDREW C. GILLIS, A.M., M.D., Professor of Neurology and Clinical Psychiatry.
 JOSEPH H. BRANHAM, M.D., Professor of Clinical Surgery.
 BERNARD PURCELL MUSE, M.D., Professor of Clinical Obstetrics.
 CHARLES L. SUMMERS, M.D., Professor of Pediatrics.

ANTON G. RYTINA, A.B., M.D., Professor of Genito-Urinary Diseases.
 HENRY J. WALTON, M.D., Professor of Roentgenology.
 R. M. CHAPMAN, M.D., Professor of Psychiatry.
 NATHAN WINSLOW, A.M., M.D., Clinical Professor of Surgery.
 PAGE EDMUNDS, M.D., Clinical Professor of Industrial Surgery.
 WALTER D. WISE, M.D., Clinical Professor of Surgery.
 EDGAR B. FRIEDENWALD, M.D., Clinical Professor of Pediatrics.
 COMPTON RIELY, M.D., Clinical Professor of Orthopedic Surgery.
 W. S. SMITH, M.D., Clinical Professor of Gynecology.
 JOSEPH W. HOLLAND, M.D., Clinical Professor of Surgery.
 E. B. FREEMAN, B.S., M.D., Clinical Professor of Gastro-Enterology.
 J. C. LUMPKIN, M.D., Clinical Professor of Surgery.
 T. FRED LEITZ, M.D., Clinical Professor of Gastro-Enterology.
 J. W. DOWNEY, M.D., Clinical Professor of Otology.
 EDWARD A. LOOPER, M.D., D.Oph., Clinical Professor of Diseases of Nose and Throat.
 SYDNEY M. CONE, A.B., M.D., Associate Professor of Pathology.
 HUGH BRENT, M.D., Associate Professor of Gynecology.
 MELVIN ROSENTHAL, M.D., Associate Professor of Dermatology.
 HUBERT C. KNAPP, M.D., Associate Professor of Medicine.
 ABRAHAM SAMUELS, Ph.G., M.D., Associate Professor of Gynecology.
 WILLIAM W. REQUARDT, M.D., Associate Professor of Surgery.
 GEORGE W. MITCHELL, M.D., Associate Professor of Diseases of Throat and Nose.
 LEWIS J. ROSENTHAL, M.D., Associate Professor of Proctology.
 J. R. ABERCROMBIE, A.B., M.D., Associate Professor of Dermatology.
 C. C. CONSER, M.D., Associate Professor of Physiology.
 H. J. MALDEIS, M.D., Associate Professor of Medical Jurisprudence.
 J. DAWSON REEDER, M.D., Associate Professor of Proctology.
 H. C. BLAKE, M.D., Associate Professor of Clinical Surgery.
 FRANK S. LYNN, M.D., Associate Professor of Surgery.
 G. M. SETTLE, A.B., M.D., Associate Professor of Neurology and Clinical Medicine.
 C. C. W. JUDD, A.B., M.D., Associate Professor of Medicine.
 ELLIOTT H. HUTCHINS, A.B., M.D., Associate Professor of Surgery.
 THOMAS R. CHAMBERS, A.B., M.D., Associate Professor of Surgery.
 R. W. LOCHER, M.D., Associate Professor of Operative and Clinical Surgery.
 H. D. MCCARTY, M.D., Associate Professor of Clinical Medicine.
 O. GLENN HARNE, A.B., Associate Professor of Pharmacology.
 JOHN EVANS, M.D., Associate Professor of Roentgenology.
 CLYDE A. CLAPP, M.D., Associate Professor of Ophthalmology.
 J. F. LUTZ, A.B., M.D., Associate Professor of Medicine.
 F. W. HACHTEL, M.D., Associate Professor of Bacteriology.
 WM. J. CARSON, M.D., Associate Professor of Pathology.
 WILLIAM H. SMITH, M.D., Associate Professor of Clinical Medicine.

PAUL W. CLOUGH, B.S., M.D., Associate Professor of Medicine.
 SIDNEY R. MILLER, A.B., M.D., Associate Professor of Medicine.
 L. H. DOUGLASS, M.D., Associate Professor of Obstetrics.
 M. RANDOLPH KAHN, M.D., Associate Professor of Ophthalmology.
 S. LLOYD JOHNSON, A.B., M.D., Assistant Professor of Medicine.

The School of Medicine of the University of Maryland is one of the oldest foundations for medical education in America, ranking fifth in point of age among the medical colleges of the United States. In the school building at Lombard and Greene Streets in Baltimore was founded one of the first medical libraries and the first medical college library in America.

Here for the first time in America dissecting was made a compulsory part of the curriculum; here instruction in Dentistry was first given (1837), and here were first installed independent chairs for the teaching of diseases of women and children (1867), and of eye and ear diseases (1873).

This School of Medicine was one of the first to provide for adequate clinical instruction by the erection in 1823 of its own hospital, and in this hospital intramural residency for senior students first was established.

Clinical Facilities

The University Hospital, property of the University, is the oldest institution for the care of the sick in Maryland. It was opened in September, 1823, and at that time consisted of four wards, one of which was reserved for eye cases. Additions were made to this building from time to time, but the demands on it became so great that a complete new building was erected. The hospital now is one of the finest owned and controlled by any medical school in the country. It is equipped with all modern conveniences and requirements for care of the sick and for clinical instruction of students of the University.

Besides its own hospital, the Medical School has control of the clinical facilities of the Mercy Hospital, in which were treated last year more than 30,000 persons, the Maternity Hospital of the University, the Maryland Lying-in Asylum, and the West End Maternity.

In connection with the University Hospital an outdoor obstetrical clinic is conducted. During the past year about 1200 cases were treated in the lying-in hospitals connected with the University.

Dispensaries and Laboratories

Three dispensaries associated with the University Hospital and Mercy Hospital, organized on a uniform plan in order that teaching may be the same in all. Each dispensary has departments of Medicine, Surgery, Children, Eye and Ear, Genito-Urinary, Gynecology, Gastro Enterology, Neurology, Orthopedics, Proctology, Dermatology, Throat and Nose, and

Tuberculosis. All students in their junior year work one day of each week in one of these dispensaries; all students in the senior year work one hour each day. About 85,000 cases treated last year give an idea of the value of these dispensaries for clinical teaching.

Laboratories conducted by the University purely for medical purposes are the Anatomical, Chemical, Experimental Physiology, Physiological Chemistry, Histology and Embryology, Pathology and Bacteriology, and Clinical Pathology.

Prizes and Scholarships

To stimulate study among the candidates for graduation the Faculty of the School of Medicine offers a gold medal to the candidate who passes the best general examination. Certificates of Honor are awarded to the five candidates standing next highest.

A prize of \$50 is given each year by Mrs. Jose L. Hirsch as a memorial to the late Dr. Jose L. Hirsch, former Professor of Pathology in this School, and is awarded to the student in the third year who has done the most satisfactory work in Pathology.

The Dr. Samuel Leon Frank Scholarship was established by Mrs. Bertha Frank as a memorial to the late Dr. Samuel Leon Frank, an alumnus of the University, and entitles the holder to exemption from payment of one-half of the tuition fee for the year. It is awarded each year upon the nomination of the Faculty "to a medical student who in the judgment of the said Faculty is of good character and in need of pecuniary assistance to continue his medical course."

From a bequest to the School of Medicine by the late Charles M. Hitchcock, M. D., an alumnus of the University, two scholarships have been established which entitle the holders to exemption from payment of one-half of the tuition fees for the year.

These scholarships are awarded annually by the Faculty of Physic to students who have meritoriously completed the work of at least the first year of the curriculum in medicine, and who present to the Faculty satisfactory evidence of good moral character and of inability to continue the course without pecuniary assistance.

The Randolph Winslow Scholarship, established by Prof. Randolph Winslow, M.D., LL.D., entitles the holder to exemption from the payment of one-half of the tuition fee of that year.

It is awarded annually by the Trustees of the Endowment Fund of the University, upon nomination of the Faculty of Physic, to "a needy student of the senior, junior or sophomore class of the Medical School. He must have maintained an average grade of 85 per cent in all his work up to the time of awarding the scholarship. He must be a person of good character and must satisfy the Faculty of Physic that he is worthy of and in need of assistance."

The University scholarship entitles the holder to exemption from payment of the tuition fee of the year and is awarded annually by the Faculty.

ulty of Physics to a student of the senior class who presents to the Faculty satisfactory evidence that he is of good moral character and is worthy of and in need of assistance to complete his work.

The St. John's College scholarship is awarded annually by the Faculty of Physic upon the nomination of the president of St. John's College, of Annapolis, Md.

It entitles the holder to exemption from the payment of the tuition fee of that year.

The Frederica Gehrmann Scholarship was established by bequest of the late Mrs. Frederica Gehrmann and entitles the holder to exemption from payment of tuition fees. This scholarship is awarded to a second-year student who at the end of the year passes the best practical examination in Anatomy, Physiology, Physiological Chemistry and Pharmacology. This examination is competitive.

The Dr. Leo Karlinsky Scholarship, established by Mrs. Leo Karlinsky in memory of her husband, Dr. Leo Karlinsky, entitles the holder to exemption from payment of tuition fee of that year to the extent of \$200.00. It is awarded annually by the Trustees of the Endowment Fund of the University upon nomination of the Medical Council, "to a needy student of the senior, junior or sophomore class of the Medical School. He must have maintained an average grade of 85 per cent in all his work up to the time of awarding the scholarship. He must be a person of good character and must satisfy the Medical Council that he is worthy of and in need of assistance."

Requirements for Entrance

Admission to the curriculum in medicine is by a completed Medical Student Certificate issued by the Registrar of the University. This certificate is obtained on the basis of satisfactory credentials, or by examination and credentials, and is essential for admission to any class.

The requirements for the issuance of the Medical Student Certificate are:

- (a) The completion of a standard four-year high school course or the equivalent, and in addition,
- (b) Two years, sixty semester, or ninety trimester hours, of college credits, including chemistry, biology, physics and English.

Women are admitted to the Medical School of this University.

Fees and Expenses

Following are the fees for students in the Medical School:

Matriculation fee (to be paid each year)\$ 5.00
Tuition fee (each year) 300.00

Estimated living expenses for students in Baltimore:

ITEMS	Low	Average	Liberal
Books	\$27	\$48	\$75
College incidentals	20	20	20
Board, eight months.....	200	322	400
Room rent	64	80	100
Clothing and laundry.....	50	80	150
All other expenses.....	25	50	75
*Total	\$386	\$600	\$820

*Students take the pre-medical work at College Park, for which there is no charge for tuition and for which other expenses are detailed in the first part of the catalogue.

DEPARTMENT OF MILITARY SCIENCE AND TACTICS

RESERVE OFFICERS' TRAINING CORPS

The work in this department is based upon the provisions of Special Regulations, No. 44, War Department, 1921.

Authorization

An infantry unit of the Senior Division of the Reserve Officers' Training Corps was established at the University under the provisions of the Act of Congress of June 3, 1916, as amended by the acts of June 3, 1916, and September 8, 1916.

Object

The primary object of the Reserve Officers' Training Corps is to provide systematic military training at civil educational institutions for the purpose of qualifying selected students of such institutions as reserve officers in the military forces of the United States. It is intended to attain this object during the time that students are pursuing their general or professional studies with the least practical interference with their civil careers, by employing methods designed to fit men, physically, mentally and morally for pursuits of peace as well as pursuits of war. It is believed that such military training will aid greatly in the development of better citizens.

Required to Take Instruction

All male students, if citizens of the United States whose bodily condition indicates that they are physically fit to perform military duty or will be upon arrival at military age, whether pursuing a four-year or a two-year course of study, are required to take for a period of two years, as a prerequisite to graduation, the military training required by the War Department.

Advanced Work

Students who complete the Basic Course satisfactorily and who are recommended by the Professor of Military Science and Tactics, and whose application is approved by the President, may continue their military training for a period of two years in the Advanced Course.

Time Allotted

For first and second year, basic course, three periods a week of not less than one hour each are devoted to this work, of which at least one hour is utilized for theoretical instruction.

For third and fourth years, advanced courses, elective, five periods a week of not less than one hour each are devoted to this work, of which at least three periods are utilized for theoretical instruction.

Physical Training

Physical training forms an important part in military instruction, and it is the policy of the Military Department to encourage and support the physical training given by civilian teachers, thus co-operating in an effort to promote a vigorous manhood.

Physical Examination

All members of the Reserve Officers' Training Corps are required to be examined physically at least once after entering the University.

Uniforms

Members of the Reserve Officers' Training Corps must appear in proper uniforms at all military formations and at other specified times.

Uniforms, or commutation in lieu of uniforms for the Reserve Officers' Training Corps, will be furnished free by the Government. The uniforms are the regulation uniforms of the United States Army, with certain distinguishing features, or if commutation of uniforms is furnished, then such uniform as may be adopted by the University. Such uniforms must be kept in good condition by the student. They are the property of the Government and, though intended primarily for use in connection with military instruction, may be worn at any other time unless the regulations governing their use are violated. The uniform cannot be worn in part. Uniforms which are furnished by the Government will be returned to the Military Department at the end of the year or before, if the student leaves the University. In case commutation of uniforms is furnished, the uniform becomes the property of the student upon completion of two years' work.

Commutation

Those students who elect the advanced course and who have signed the contract with the Government to continue in the Reserve Officers' Training Corps for the two remaining years of the advanced course are entitled to commutation of subsistence from and including the date of contract until they complete the course at the institution.

Summer Camps

An important and excellent feature of the Reserve Officers' Training Corps is the summer camp. In specially selected parts of the country camps are held for a period not exceeding six weeks for students who are members of the Reserve Officers' Training Corps. These camps are under the strict supervision of army officers and are intended primarily to give a thorough and comprehensive practical course of instruction in the different arms of the service.

Parents may feel assured that their sons are carefully watched and safeguarded. Wholesome surroundings and associates, work and healthy

recreation are the keynote to contentment. Social life is not neglected and the morale branch exercises strict censorship over all social functions.

The attendance at summer camps is compulsory only for those students who are taking the advanced course. The War Department recommends that as many basic students as possible attend the summer camps.

The students who attend the summer camps are under no expense. The Government furnishes transportation from the institution to the camp and from the camp to the institution, or to the student's home, unless the mileage is greater than that from the camp to the institution. In this case, the amount of mileage from the camp to the institution is allowed the student. Quarters and food are furnished. The Advanced Course men, in addition to receiving quarters and food, are paid seventy cents (\$0.70) for each day spent in camp.

Commissions

(a) Each year upon completion of the Advanced Course, students qualified for commissions in the Reserve Officers' Corps will be selected by the head of the institution and the professor of Military Science and Tactics.

(b) The number to be selected from each institution and for each arm of the service will be determined by the War Department.

Credits

Military instruction at this University is on a par with other university work and the requirements of this department are proficiency the same as with other departments.

Students who have completed satisfactorily the prescribed training with a unit of the S. A. T. C. may be credited with one year of the Basic Course prescribed for the R. O. T. C., and those students who have received military training at any educational institution under the direction of an army officer detailed as professor of military science and tactics may receive credit for instruction equivalent to that given in the senior division R. O. T. C., if over fourteen years of age.

MILITARY DEPARTMENT

Description of Courses

M. I. 101. *Basic R. O. T. C.*—The year. Four credits. Freshman year. The following subjects are covered:

First Semester:

Physical Training (Practical), Military Courtesy and Customs of the service (Theoretical and Practical), Infantry Drill, School of Soldier, Squad and Platoon (Theoretical and Practical), Scouting and Patrolling (Theoretical and Practical), Rifle Marksmanship, to include gallery practice and range practice (Theoretical and Practical), Personal Hygiene (Lectures).

Second Semester:

Physical Training (Practical), Infantry Drill, School of Platoon and Company (Theoretical and Practical), Scouting and Patrolling (Theoretical and Practical), Infantry Equipment (Practical).

M. I. 102. *Basic R. O. T. C.*—The year. Four credits. Sophomore year.

The following subjects are covered:

First Semester:

Physical Training (Practical), Infantry Drill, School of the Soldier, Squad, Platoon and Company (Theoretical and Practical), Musketry (Theoretical and Practical), Military Map Reading and Sketching (Theoretical and Practical), Infantry Weapons, viz: Bayonet, Hand Grenades, Rifle Grenades, Automatic Rifles (Theoretical and Practical), Military Hygiene, Sanitation and First Aid (Theoretical and Practical).

Second Semester:

Military Map Reading and Sketching (Theoretical and Practical), Infantry Drill, School of Company (Practical), Physical Training (Practical).

M. I. 103. *Advanced R. O. T. C.*—The year. Six credits. Junior year.

The following subjects are covered:

First Semester:

Physical Training (Practical), Infantry Drill, Duties of Instructors, Command and Leadership (Theoretical and Practical), Field Engineering (Theoretical and Practical), Military Law (Theoretical and Practical), Accompanying Weapons, viz: Machine Guns, 37 mm. Gun and Mortars (Theoretical and Practical).

Second Semester:

Physical Training (Practical), Infantry Drill, Duties of Instructors, Command and leadership (Theoretical and Practical), Field Engineering (Theoretical and Practical), Problems in Use of Accompanying Weapons.

M. I. 104. *Advanced R. O. T. C.*—The year. Six credits. Senior year.

The following subjects are covered:

First Semester:

Physical Training (Practical), Infantry Drill, Duties of Instructors, Command and leadership (Theoretical and Practical), Minor Tactics (Theoretical and Practical), Administration, Army Paper Work (Theoretical and Practical), Military History and Policy of the United States (Theoretical).

Second Semester:

Minor Tactics (Theoretical and Practical), Physical Training (Practical), Infantry Drill, Duties of Instructors, Command and leadership (Theoretical and Practical), Pistol Marksmanship, to include Range Practice (Theoretical and Practical).

School of Nursing

FACULTY AND INSTRUCTORS

ANNIE CRIGHTON, R. N.
Superintendent of Nurses and Director of School of Nursing

STELLA M. RICKETTS
Assistant Superintendent of Nurses

JANET NESBITT SMITH, R. N.
Instructor in Nursing

EVA FISCHER, R. N.
Instructor in Nursing and Supervisor of Wards

ELIZABETH AITKENHEAD, R. N.
Instructor in Surgical Technique for Nurses and
Supervisor of Operating Pavilion

MARIAN CONNELLY
Instructor in Dietetics

EDITH WALTON
Instructor in Massage

GRACE PEARSON, R. N.
Instructor in Social Service

RUTH CLEMENT, R. N.....Night Supervisor.
MARY E. ROLPH, R. N.....Supervisor—Nurses Home.
BERTHA RAWLINGS, R. N.....Supervisor—Dispensary.
FRANKIE MORRISON, R. N.....Head Nurse—Obstetrical Ward.
MARGARET LAUPER, R. N.....Head Nurse—Men's Medical
Ward.
BESSIE MASTON, R. N.....Head Nurse—Men's Surgical
Ward.
ELEANOR BUTLER, R. N.....Head Nurse—Accident Ward.
GRACE ELGIN, R. N.....Head Nurse—Women's Medical,
Gynecological and Surgical
Ward.
BLANCHE HOFFMASTER, R. N.....Head Nurse—Private Hall.
PAULINE H. ESSLINGER, R. N.....Head Nurse—Private Hall.
.....Assistant Dietitian.

LECTURERS FROM THE SCHOOL OF MEDICINE

Anatomy and Physiology
JOSEPH W. HOLLAND, M. D.

Bacteriology
F. W. HACTEL, M. D.

Materia Medica
C. C. HABLSTON, M. D.

Medicine
MAURICE C. PINCOFFS, M. D.
JOSEPH E. GICHNER, M.D. H. M. STEIN, M. D.
LOUIS KRAUSE, M. D. J. HARRY ULRICH, M. D.

ARTHUR M. SHIPLEY, M. D.
Surgery

L. H. DOUGLASS, M. D.
Obstetrics

CHARLES L. SUMMERS, M. D.
Pediatrics

G. M. SETTLE, M. D.
Psychiatry and Neurology

HARRY M. ROBINSON, M. D.
Skin and Venereal Diseases

HARRY FRIEDENWALD, M. D.
Otology and Ophthalmology

E. A. LOOPER, M. D.
Laryngology and Rhinology

HUGH BRENT, M. D.
Gynecology

R. TUNSTALL TAYLOR, M. D.
Orthopedic Surgery

General Statement

The University of Maryland School for Nurses was established in the year 1889.

Since that time it has been an integral part of the University of Maryland Hospital.

The school is non-sectarian, the only religious services being morning prayers.

The University of Maryland Hospital is a general hospital containing about 285 beds. It is equipped to give young women a thorough course of instruction and practice in all phases of nursing including experience in the operating room.

The school offers the student nurse unusual advantages in its opportunity for varied experience and in its thorough curriculum taught by well qualified instructors and members of the medical staff of the University.

Admission Requirements

In order to become a candidate for admission to the Training School, application must be made in person or by letter, to the superintendent of nurses. An application by letter should be accompanied by a statement from a clergyman testifying to good moral character and from a physician certifying to sound health and unimpaired faculties. No person will be considered who is not in a good physical condition between the ages of 18 and 35. She must also show that she has a high school education or its equivalent. This is the minimum requirement, for women of superior education and culture are given preference provided they meet the requirements in other particulars.

The fitness of the applicant for the work and the propriety of dismissing or retaining her at the end of her term of probation, is left to the decision of the superintendent of nurses. Misconduct, disobedience, insubordination, inefficiency, or neglect of duty are causes for dismissal at any time by the superintendent of nurses with the approval of the president of the University.

Time: Students are admitted in February, June and September.

HOURS ON DUTY: During the probation term the students are on duty not more than six hours daily. During the Junior, Intermediate and Senior years, the students are on eight hour day duty, with six hours on Sunday and holidays, and ten hour night duty. The night duty periods are approximately two months each, with one day at the termination of each term for rest and recreation. The period of night duty is approximately five or six months during the three years.

SICKNESS: A physician is in attendance each day, and when ill all students are cared for gratuitously. The time lost through illness in excess of two weeks, during the three years must be made up. Should the authorities of the school decide that through the time lost the theoretical

work has not been sufficiently covered to permit the student to continue in that year, it will be necessary for her to continue her work with the next class.

VACATIONS: Vacations are given between June and September. A period of three weeks is allowed the student at the completion of first and second years.

EXPENSE: A student receives her board, lodging and a reasonable amount of laundry from the date of entrance. During her period of probation she provides her own uniforms made in accordance with the hospital regulations. After being accepted as a student nurse she wears the uniform furnished by the hospital. The student is also provided with text-books and in addition to this is paid five dollars (\$5.00) a month. Her personal expenses during the course of training and instruction will depend entirely upon her individual habits and tastes.

General Plan of Instruction

The course of instruction covers a period of three years.

Junior Year—First Term

The Junior Year is divided into two periods. The first term is the preparatory period (4 mos.) and the second the junior term.

In the preparatory term the student is given practical instruction in:—

1. The making of hospital and surgical supplies. The cost of hospital materials, apparatus and surgical instruments.
2. Household economics and the preparation of foods.
3. The hospital outpatients department and dispensary.

During this term the practical work is done under constant supervision, and teaching is given correlatively.

Excursions are made to markets, hygienic dairies, linen rooms, laundry and store room.

The maximum number of hours per week in formal instruction divided into lecture and laboratory periods is thirty hours and includes courses in anatomy and physiology, dietetics, materia medica, personal hygiene, drugs and solutions, household economics, short course in ethics and history of nursing.

At the close of the first half of junior year the students are required to pass satisfactorily both the written and oral tests, and failure to do so will be sufficient reason to terminate the course at this point.

Subsequent Course

The course of instruction, in addition to the probationary period, occupies two and three-fourth years, and students are not accepted for a shorter period.

After entering the wards, the students are constantly engaged in practical work under the immediate supervision and direction of the head nurses and instructors.

Throughout the three years, regular courses of instruction and lectures are given by members of the medical and nursing school faculties.

Junior Year—Second Term

During this period the students receive theoretical instruction in massage, general surgery and general medicine. Practical instruction is received in the male and female, medical, surgical and children's wards.

Intermediate Year

During this period the theoretical instruction includes pediatrics, infectious diseases, obstetrics and gynecology. The practical work provides experience in the nursing of obstetrical and gynecological patients in the operating rooms and the outpatient department.

Senior Year

During this period the student receives short courses of lectures on subjects of special interest. This includes a consideration of the work of institutions of public and private charities, of settlements, and various branches of professional work in nursing.

Experience is given in executive and administration work to those showing exceptional ability in the senior year. With these students conferences are held on administration and teaching problems.

GRADUATION. The diploma of the school will be awarded to those who have completed satisfactorily the full term of three years, and have passed successfully the final examinations.

SCHOLARSHIPS. One scholarship has been established by the alumnae of the training school. It entitles a nurse to six weeks course at Teachers College, New York. This scholarship is awarded at the close of the third year to the student whose work has been of the highest excellence, and who desires to pursue post-graduate study and special work.

An alumnae pin is presented by the Woman's Auxiliary Board to the student who at the completion of three years shows exceptional executive ability.

The School of Pharmacy

FACULTY

E. F. KELLY, Phar. D., *Dean*.
B. OLIVE COLE, Phar. D., *Secretary*.

PHARMACY—

E. F. KELLY, Phar. D., Professor of Pharmacy.
J. CARLTON WOLF, B.Sc., Phar. D., Professor of Dispensing.
JOHN C. KRANTZ, JR., Ph.C., Associate Professor of Pharmacy.
LOUIS J. BURGER, Phar. G., LL.B., Lecturer on Pharmaceutical Jurisprudence.
WM. L. REINDOLLAR, Phar. G., Assistant in Pharmacy.
STANLEY L. CAMPBELL, Phar. G., Assistant in Dispensing.

MATERIA MEDICA—

DAVID M. R. CULBRETH, A.M., Phar. G., M.D., Professor Emeritus of Botany and Materia Medica.
CHAS. C. PLITT, Phar. G., Sc.D., Professor of Botany and Materia Medica.
B. OLIVE COLE, Phar. D., Associate Professor of Botany and Materia Medica.

CHEMISTRY—

NEIL E. GORDON, Ph.D., Professor of Chemistry.
M. KHARASCH, Ph.D., Professor of Organic Chemistry.
H. E. WICH, Phar. D., Associate Professor of Chemistry.
E. B. STARKEY, Associate Professor of Inorganic Chemistry.

PHYSIOLOGY and HYGIENE and BACTERIOLOGY—

ROBT. L. MITCHELL, Phar. D., M.D., Professor of Physiology and Hygiene, and Bacteriology.
H. J. MALDEIS, M.D., Associate Professor of Bacteriology.

GENERAL EDUCATIONAL SUBJECTS—

W. W. CUTCHIN, Phar. D., LL.B., Professor of Business Administration.
C. F. KRAMER, M.A., Associate Professor of Modern Languages.
H. J. SCHAD, M.A., Associate Professor of Mathematics.
F. M. LEMON, A.M., Professor of English.
C. G. EICHLIN, M.S., Professor of Physics.
GEO. S. SMARDON, Comptroller.
W. M. HILLEGEIST, Registrar.

The school of Pharmacy was organized in 1841, largely at the instance of members of the Faculty of Medicine, and, for a time, the lectures were delivered at the Medical School. Later it became separated and continued an independent organization, as the Maryland College of Pharmacy, until it finally became part of the University in 1904. With but one short intermission, previous to 1865, it has continuously exercised its functions as a teaching school of pharmacy.

Location

The School of Pharmacy is located at the northeast corner of Lombard and Greene Streets, with the Schools of Medicine, Law and Dentistry.

Policy and Degrees

The chief purpose of this college has been to prepare its matriculants for the intelligent practice of retail pharmacy, without overlooking the fact that there exist other divisions of the profession and that all need to be scientifically taught. With this in view, the School of Pharmacy has arranged a graded course, so that it may, first, build for the student a well ordered foundation, upon which the pharmaceutical specialist can be developed. Upon completion of the first two years of the course, the diploma of Graduate in Pharmacy (Ph.G.) is awarded, which admits the holder to the board examinations in the various states for registration as a pharmacist. In this basic division of the course, in addition to the work as specified in the Pharmaceutical Syllabus, general educational subjects are included, sufficient to give the successful students full collegiate credit, and they become eligible for admission into the Medical School of the University of Maryland upon further completion of six semester hours in Zoology.

The diploma of Pharmaceutical Chemist (Ph.C.) will be awarded upon the completion of the advanced work prescribed for the third year of the course to those students who have completed the Ph.G. division of the course in this or other schools holding membership in the American Conference of Pharmaceutical Faculties, and have met the entrance requirements of this school.

Recognition

This school holds membership in the American Conference of Pharmaceutical Faculties. The object of the Conference is to promote the interests of pharmaceutical education and all institutions holding membership must maintain certain minimum requirements for entrance and graduation. Through the influence of this Conference uniform and higher standards of education have been adopted from time to time and the fact that several states by law or by Board ruling recognize the standards of the Conference is evidence of its influence.

This school is registered in the New York Department of Education, and by the Boards of Pharmacy of Ohio and other states that maintain a registration bureau.

Its diploma is recognized in all states.

Requirements for Matriculation

The applicant must have completed a four-year standard high school course, or its equivalent. A minimum age of seventeen years is demanded except when the candidate is a graduate of an accredited high school or of an institution of equal grade.

Admission to the course in pharmacy is by certificate issued by the Registrar of the University of Maryland, Lombard and Greene Streets, Baltimore, Md. The certificate is issued on the basis of credentials, or by examination, or both.

Applicants whose credentials do not meet the requirements must stand an examination in appropriate subjects to make up the required number of units. The fee for such examination is one dollar per subject; five dollars for the entire number of subjects.

Credit will be given for first year pharmaceutical subjects to those students coming from schools of pharmacy holding membership in the American Conference of Pharmaceutical Faculties, provided they present a proper certificate of the satisfactory completion of such subjects and meet the entrance requirements of this school. Credit for general educational subjects will be given to those students presenting evidence of having completed work of equal value.

Requirements for Graduation

1. The candidate must possess a good moral character.
2. He or she must have successfully completed the work specified in the first two years of the course if a candidate for the Graduate in Pharmacy (Ph.G.) diploma; or three years if a candidate for the Pharmaceutical Chemist (Ph.C.) diploma; in each instance the last year to be taken in this school.

Table of Fees

Matriculation, paid but once.....	\$5.00
For Full First Year	175.00
For Full Second Year	175.00
For Full Third Year	175.00
Graduation fee (returned in case of failure).....	10.00
Yearly charge to cover breakage.....	10.00

Special Fees

Students who wish to take special subjects and not the full curriculum are expected to matriculate and make necessary arrangements as to charges.

Payments

The Matriculation Tickets must be procured from the office of the School of Pharmacy, and must be taken out before entering the classes.

The fees for tuition are payable in two equal installments, on October 1, 1923, and January 4, 1924. The breakage fee is payable on October 1, and the graduation fee not later than May 1st.

Students in arrears for tuition will not be admitted to the mid-year examinations and if the tuition be not paid in full by April 1, they will be asked to withdraw, unless satisfactory assurance be given that the tuition will be paid before the close of the session.

A special bulletin on the course in Pharmacy may be obtained by addressing the School of Pharmacy, University of Maryland, Baltimore, Md.

Department of Physical Education and Recreation

The Department of Physical Education and Recreation has been organized to control all physical training, recreation, intramural and inter-collegiate athletics. All work is closely co-ordinated and the ideal is to see that every man in the institution gets opportunities to take part in competitive sports. The plan under which the department is to operate may be summed up as follows:

1. A series of exercises arranged for every student in the institution and compulsory for all, the exercises to be based on mass exercises common in Germany and Scandinavian countries. Neither the German nor Scandinavian system is to be used in its entirety, but a combination of the heavy gymnastic drills of the former with the lighter squad drills of the latter. All students will be given physical examination and placed in various classes according to their individual physical needs. Students will receive different kinds of work and be encouraged to take part in those games which provide the exercise of which they are most in need.

2. A general system of intramural athletics is carried out under a regular schedule with teams representing different units of the University. All students take part in one or more of these branches of sport and the University encourages enough sports to give each an opportunity. It is the aim of each class to have its own wrestling team, basket-ball team, baseball team, volley-ball team, track team, and so on for just as many teams as there are students to fill the positions. The games between these teams are carried out with regularity of schedule and supervision. Besides these, there are general competitions such as cross-country runs and interclass track meets in which representatives of all classes may compete at the same time. A regular playground is in process of construction on which will be available tennis courts, volley-ball courts, tether ball polls, stakes for pitching quoits, etc.

3. All physical training of the students, including mass exercises, intramural sports, intercollegiate competitions, and military training, are a part of the general educational system of the University.

For the present practically all general training, such as comes under the head of gymnastics and squad exercises, is conducted under the direction of the Military Department.

A new gymnasium and stadium, now being constructed, will add greatly to the facilities for general athletics and physical education. Combined they will give the University the most modern athletic plant in the South.

DEGREES CONFERRED 1922

HONORARY DEGREES

JOHN JOSEPH PERSHING, Doctor of Laws
 ARTHUR ROSCOE HIRST, Doctor of Engineering
 JOHN NATHANIEL MACKALL, Doctor of Engineering
 EUGENE AMANDUS SCHWARZ, Doctor of Science
 WILLIAM OXLEY THOMPSON, Doctor of Laws

HONORARY TESTIMONIALS OF MERIT IN AGRICULTURE

RICHARD SMITH SNADER New Windsor, Maryland
 ISAAC HENRY MOSS Govans, Maryland
 JOHN COOK Baltimore, Maryland

THE GRADUATE SCHOOL

Master of Science

EDMUND CALVIN DONALDSON Laurel, Maryland
 EDGAR BENNETT STARKEY Sudlersville, Maryland
 REGINALD VAN TRUMP TRUITT Snow Hill, Maryland
 RAYMOND CLIFFORD WILEY College Park, Maryland
 CHARLES PHILIP WILHELM Baltimore, Maryland
 MALCOLM RUSSELL YOUNG Beesleys Point, New Jersey

COLLEGE OF AGRICULTURE

Bachelor of Science

HELENA DODGE AVERY Washington, District of Columbia
 EDWARD LELAND BROWNE Chevy Chase, Maryland
 BERTHA BRILL EZEKIEL Berwyn, Maryland
 HENRY SAULISBURY FISHER Hillsboro, Maryland
 WILLIAM PRESSTMAN FUSSELBAUGH Baltimore, Maryland
 HENRY JACOB GUREVICH Washington, District of Columbia
 THOMAS DAIL HOLDER Vienna, Maryland
 JESSE MARION HUFFINGTON Eden, Maryland
 WILLIAM WALLACE KIRBY Berwyn, Maryland
 GEORGE WILBUR MALCOLM Barton, Maryland
 GEORGE MAHLON MERRILL Crisfield, Maryland
 JOHN AUSTIN MORAN Frederick, Maryland
 STERLING RUFFIN NEWELL Falls Church, Virginia
 JOHN HOWE PAINTER Washington, District of Columbia
 CLAYTON REYNOLDS Oxford, Pennsylvania
 JACOB EDWARD SHILLINGER Washington, District of Columbia
 JAMES HERBERT SNYDER Lewistown, Maryland
 LAURENCE JANNEY STABLER Washington, District of Columbia
 ROLAND LEE SUTTON Ballston, Virginia

Certificates Two-Year-Course in Agriculture

MARSHALL CLAGETTE GRAY Ironsides, Maryland
 CHARLES WILLIAM HOHMAN West, West Virginia
 JULIUS PARCELL PARRAN Lusby, Maryland

Veterans' Bureau Certificates

JOHN BISHOP Washington, District of Columbia
 JOHN WALLACE COYLE East Syracuse, New York
 JOHN JOSEPH DAVIS Washington, District of Columbia
 CLARENCE LEE HOWELL Chase City, Virginia
 HOWARD VAN JAMES Williamsburg, Virginia
 WILTON GERALD KIRBY Havre de Grace, Maryland
 DAVID LAWRENCE LINT Washington, District of Columbia
 ROBERT CURTIS MOLER Mount Ranier, Maryland
 GEORGE OLIVER RUSSELL Norfolk, Virginia
 GEORGE SMITH TAIT Fairfax, Virginia
 CLIFFORD EDWIN SULLIVAN Reisterstown, Maryland

COLLEGE OF ARTS AND SCIENCES

Bachelor of Arts

SIDNIA BUTLER New York City
 ROBERT NICHOLAS YOUNG Washington, District of Columbia

Bachelor of Science

RALPH HENRY BEACHLEY Middletown, Maryland
 EDWARD BROOKE BREWER College Park, Maryland
 MORRIS MACDOWELL CLARK Silver Springs, Maryland
 FREDERICK RANDOLPH DARKIS Frederick, Maryland
 JAMES WILLIAM ELDER Cumberland, Maryland
 CHARLES HERBERT DEWEY GILBERT Frederick, Maryland
 WALTER SCOTT GRAHAM Hyattsville, Maryland
 ROBERT JAMES HODGINS College Park, Maryland
 HYMAN EDMUND LEVIN Baltimore, Maryland
 ALFRED JAMES NORTHAM Pocomoke, Maryland
 ROMEO JOSEPH PAGANUCCI Waterville, Maine
 OTTO PHILIP HENRY REINMUTH Frederick, Maryland
 JOHN DORSEY SCHEUCH College Park, Maryland
 GEORGE NELSON SCHRAMM Cumberland, Maryland
 JOSEPH GUNBY SCOTT Princess Anne, Maryland
 HARRY EDWIN SEMLER Hagerstown, Maryland

Extension Course in Commerce

Bachelor of Commercial Science

JOHN EDWARD CLABAUGH Baltimore, Maryland
 SYLVAN KATZ Baltimore, Maryland
 JOSEPH ROLLIN OTTO Baltimore, Maryland
 WILLIAM MCK. WETZEL Baltimore, Maryland

Certificates of Proficiency

HERBERT COLLINS METCALFE	Baltimore, Maryland
GEORGE M. SCHERER	Baltimore, Maryland
BESSIE TERLITZKY	Baltimore, Maryland
FRANK FREEMAN TIPPETT	Baltimore, Maryland
ARTHUR VICTOR WOOLDRIDGE	Baltimore, Maryland

SCHOOL OF DENTISTRY

Doctor of Dental Surgery

MYRON SAMSON AISENBERG	New Britain, Connecticut
WINFIELD JOSEPH ATNO	Newark, New Jersey
SAMUEL HARRY BLANK	Camden, New Jersey
CHARLES ADAM BOCK	Baltimore, Maryland
EMMETT PERRIN BUGG	Madison, Georgia
WILLIAM FRANCIS BURKE	Amesbury, Massachusetts
JOHN FRANCIS CLARK	Utica, New York
LUTHER LYNN EMMART	Baltimore, Maryland
GRAYSON WILBUR GAVER	Myersville, Maryland
MOSES GIBSON	Baltimore, Maryland
SAUL GOLDSTEIN	Newark, New Jersey
ABE DAVID GREENBERG	New Haven, Connecticut
LOUIS GROSSMAN	Newark, New Jersey
CECIL ISIDOR KIELL	Newark, New Jersey
SAUL DAVID LEADES	New Britain, Connecticut
TROY CARL LUGAR	New Castle, Virginia
WILLIAM REICHEL	Annapolis, Maryland
SIDNEY NAPHTALIN ROTHFEDER	New Britain, Connecticut
ALFREDO SAUDALIO SALIVA	Mayaguez, Porto Rico
NATHAN SCHERR	Baltimore, Maryland
DANIEL EDWARD SHEHAN	Baltimore, Maryland
JACOB SILVERMAN	Newark, New Jersey
OSWALD PATTON SMITH	Asheville, North Carolina
MAX EMMANUEL SOIFER	Hartford, Connecticut
ALEX J. SPINNER	Newark, New Jersey
WILLIAM CLIFFORD TERHUNE	Paterson, New Jersey
HENRY BURGESS THOMSON	Culpeper, Virginia
MAYNARD DEWITT WOLFE	Bloomfield, New Jersey
MORRIS WOLF	Washington, District of Columbia

COLLEGE OF EDUCATION

Bachelor of Science

JOHN ARMISTEAD BURROUGHS	Clinton, Maryland
FRANCIS DESALES CANTER	Aquasco, Maryland
HULDAH ELIZABETH ENSOR	Sparks, Maryland
WILLIAM FLEMING McDONALD	Barton, Maryland

PAUL TYLER MORGAN	Baltimore, Maryland
GORDON VERNON NELSON	Newport News, Virginia
WALTER WILLIAM PETERMAN	Clear Spring, Maryland
MILDRED PAULINE SMITH	Washington, District of Columbia

Special Teachers' Diplomas

JOHN ARMISTEAD BURROUGHS	Clinton, Maryland
FRANCIS DESALES CANTER	Aquasco, Maryland
HENRY DEUSSEN	Baltimore, Maryland
FRANK J. DEITZ	Baltimore, Maryland
HULDAH ELIZABETH ENSOR	Sparks, Maryland
PAUL C. EDWARDS	Baltimore, Maryland
WILLIAM FLEMING McDONALD	Barton, Maryland
PAUL TYLER MORGAN	Baltimore, Maryland
GORDON VERNON NELSON	Newport News, Virginia
WALTER WILLIAM PETERMAN	Clear Spring, Maryland
KURT A. SCHNEIDER	Baltimore, Maryland
MILDRED PAULINE SMITH	Washington, District of Columbia
ANTHONY R. SPARTANA	Baltimore, Maryland

COLLEGE OF ENGINEERING

Bachelor of Science

ALFRED SELLMAN BEST	Harwood, Maryland
KEATOR THOMPSON BROACH	College Park, Maryland
POUL GUNNI BUSCK	Washington, District of Columbia
JOHN ALBERT BUTTS	Loysburg, Pennsylvania
CHARLES EUGENE DARNALL	Hyattsville, Maryland
EDWIN FOLTZ DARNER	Hagerstown, Maryland
FRANCIS GEORGE EWALD	Mount Savage, Maryland
AUGUSTUS WEBSTER HINES	Washington, District of Columbia
CHARLES EDGAR MOORE, JR.	Baltimore, Maryland
HERBERT EUTAW NEIGHBOURS	Lewistown, Maryland
FREDERICK JAMES NORWOOD	Washington, District of Columbia
MERWYN LEON PUSEY	Cape Charles, Virginia
EDGAR FARR RUSSELL	Washington, District of Columbia
CLARENCE DESALES SASSCER	Croom, Maryland

Civil Engineer

HERSCHEL HEATHCOTE ALLEN	Baltimore, Maryland
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SCHOOL OF LAW

Bachelor of Laws

SAMUEL JAY AARON	Baltimore, Maryland
GEORGE CHARLES AHRLING	Baltimore, Maryland
GEORGE ZADOCK ASHMAN	Baltimore, Maryland
THOMAS EDWARD BARRETT, JR.	Baltimore, Maryland

PAUL U. BEALL	Baltimore, Maryland
ALTON YOUNG BENNETT	Frederick, Maryland
PAUL BERMAN	Baltimore, Maryland
RICHARD CONSTABLE BERNARD	Baltimore, Maryland
WILLIAM HARBAUGH BOVEY	Hagerstown, Maryland
JOSEPH T. BRENNAN	Baltimore, Maryland
MEYER BROWN	Baltimore, Maryland
THOMAS BALDWIN BUTLER	Towson, Maryland
ALLAN ELI COHAN	Baltimore, Maryland
EUGENE CONWELL COUNCILL	Baltimore, Maryland
GEORGE ROLAND CUMMINGS	Baltimore, Maryland
JOSEPH FRANCIS DiDOMENICO	Baltimore, Maryland
GEORGE F. FLENTJE, JR.	Baltimore, Maryland
WILLIAM JACOB FOWLER	Baltimore, Maryland
DAVID FRIEDMAN	Baltimore, Maryland
JOHN STUART GALLOWAY	Baltimore, Maryland
ALEXANDER GOODMAN	Baltimore, Maryland
JOSEPH ALOYSIUS GUTHRIE	Baltimore, Maryland
EDWARD EVERETT HARGEST, JR.	Baltimore, Maryland
CALVERT KEEFER HARTLE	Hagerstown, Maryland
SAMUEL HECKER	Baltimore, Maryland
GEORGE GRANGER JENKINS	Baltimore, Maryland
EDMOND HOUGH JOHNSON	Snow Hill, Maryland
ROBERT ELMER KINDRED	Baltimore, Maryland
CHARLES WILLIAM KLIPPER	Baltimore, Maryland
HARRY S. KRUGER	Baltimore, Maryland
HERBERT FERDINAND KUENNE	Baltimore, Maryland
LOUIS MONCURE LATANE	Baltimore, Maryland
JOHN VERNON LEMMERT	Baltimore, Maryland
ALBERT A. LEVIN	Baltimore, Maryland
JAMES J. LINDSAY, JR.	Baltimore, Maryland
DENTON SCOTT LOWE	Wittman, Maryland
J. A. MEYER	Baltimore, Maryland
FREDERICK LEONARD MAAS	Rossville, Maryland
ROBERT LEE MAINEN	Baltimore, Maryland
FENDALL MARBURY	Baltimore, Maryland
CHARLES HERMANN MIEGEL	Baltimore, Maryland
JOSHUA WELDON MILES, JR.	Baltimore, Maryland
JAMES HOWARD MILLAR	Baltimore, Maryland
THOMAS FRANCIS MITCHELL	Thompsonville, Connecticut
JOSEPH THEODORE MOLZ	Baltimore, Maryland
GEORGE ROBERT NAKE	Baltimore, Maryland
GEORGE STEPHENSON NEWCOMER	Baltimore, Maryland
JOHN JEROME NOWAKOWSKI	Baltimore, Maryland
JOHN PHILEMON PACA, 5th	Baltimore, Maryland
JOSEPH THEODORE PARR	Baltimore, Maryland

WILLIAM HAWKES PRICE	Snow Hill, Maryland
EDWARD D. E. ROLLINS	Baltimore, Maryland
GUSTAV FREDERICK SANDERSON	Baltimore, Maryland
ERNEST EMIL SAVARD	Bristol, Connecticut
LEO ALBERT SCHNEIDER	Baltimore, Maryland
EUGENE SCHONFIELD	Baltimore, Maryland
JESSIE I. SEIDMAN	Baltimore, Maryland
JOSEPH SHERBOW	Baltimore, Maryland
JOSEPH SKRENTNY	Baltimore, Maryland
LEON SMALL	Baltimore, Maryland
MORRIS S. SNYDER	Baltimore, Maryland
ABRAHAM STERN	Baltimore, Maryland
WALTER LEE TAYLOR, JR.	Catonsville, Maryland
CHARLES HENRY THOMPSON	Relay, Maryland
ROSZEL C. THOMSEN	Baltimore, Maryland
JOHN GEORGE VOGELER	Baltimore, Maryland
EDWIN CLAY WEAVER	Baltimore, Maryland
FRANCIS EDWARD WHEELER	Baltimore, Maryland
RICHARD W. WILLIAMS	Halethorpe, Maryland
LEWIS M. WILSON	Cumberland, Maryland
DAVID CHARLES WINEBRENNER, 3rd	Frederick, Maryland
BENJAMIN LOUIS WOLFSON	Baltimore, Maryland
ANTONIO AYUSO VALDIVIELSO	Porto Rico

SCHOOL OF MEDICINE

Doctor of Medicine

HARRY BAILEY	New Haven, Connecticut
ANTHONY VINCENT BUCHNESS	Baltimore, Maryland
IRA PRESTON CHAMPE, JR.	Charleston, West Virginia
LOUIS JACOB DORSHAY	Brooklyn, New York
BERTHOLD FLEISCHMANN	New York City
ELIAS FREIDUS	New York City
J. DUDLEY FRITZ	Brooklyn, New York
WILLIAM J. FULTON	Baltimore, Maryland
WILLIAM GINSBERG	New York City
BERNHARD A. GOLDMAN	Pittsburgh, Pennsylvania
WILLIAM A. GOLLICK	Jersey City, New Jersey
HERBERT GORDON	New York City
ELIAS GORDON	Philadelphia, Pennsylvania
LEONARD HARRY GREENBAUM	Baltimore, Maryland
MORRIS GROFF	Brooklyn, New York
GEORGE CONRAD HALLEY	Twin Falls, Idaho
ROBERT DOVE HARMAN	Riverton, West Virginia
DANIEL SAMUEL HATFIELD	Charleston, West Virginia
HUBERT M. HEITSCH	Pontiac, Michigan

WILLIAM HOLLISTER
 HERMAN JACK HOROWITZ
 WILLIAM HUFF
 DAVID NEILL INGRAM
 GEORGE GREGORY KEEFE
 GEORGE S. KERDASHA
 JOHN J. KRAGER
 ANDREW KUNKOWSKI
 MILTON CHARLES LANG
 LAWRENCE WELLS LAWSON
 JAMES JULIAN PAUL LINKE
 CECIL GLEN MCCOY
 ALBIN S. MERCIER
 WILLIAM ROBERT MIDDLEMISS
 ARTHUR CERIL MONNINGER
 EDWARD NICHOLAS MORGAN
 LOUIS NOLL
 JOHN A. O'CONNOR
 JOHN EDWARD PAYNE
 H. RAYMOND PETERS
 HENRY L. PITTMAN
 GUY FOOTE PULLEN
 BRICEY MILTON RHODES
 JOHN DAVID RUDISILL
 ABRAHAM HELLMAN SALZBERG
 ARCHIBALD RICHARD SAPORITO
 ARTHUR JOSEPH FRANCIS SEKERAK
 GEORGE EDMON SHANNON
 SYDNEY SHAPIN
 LOUIS MENDELSON SHAPIRO
 HARRY MELMUTH STERNBERG
 JOSEPH SAMUEL STOVIN
 PHILIP DAVID STOUT
 SAMUEL WATERMAN SWEET
 AARON HYMAN TRYNNIN
 JOHN OGLE WARFIELD, JR.
 THOMAS NORWOOD WILSON

New Berne, North Carolina
 New York City
 Roanoke, Virginia
 Baltimore, Maryland
 Waterbury, Connecticut
 Weehawken, New Jersey
 Baltimore, Maryland
 Baltimore, Maryland
 Baltimore, Maryland
 Logan, West Virginia
 Plainfield, New Jersey
 Mannington, West Virginia
 Lisbon, Maryland
 Salt Lake City, Utah
 Scranton, Pennsylvania
 Batavia, New York
 Hartford, Connecticut
 Baltimore, Maryland
 Clarksburg, West Virginia
 Baltimore, Maryland
 Fayetteville, North Carolina
 Greenwich, Connecticut
 Tallahassee, Florida
 Lincolnton, North Carolina
 New York City
 Harrison, New Jersey
 Bridgeport, Connecticut
 Baltimore, Maryland
 Brooklyn, New York
 New Haven, Connecticut
 Brooklyn, New York
 New Haven, Connecticut
 Doeville, Tennessee
 Utica, New York
 Brooklyn, New York
 Philadelphia, Pennsylvania
 Hebron, Maryland

SCHOOL FOR NURSES

Graduate Nurse

LUCILE BOWIE
 VERA ELLEN CALLAHAN
 MARY JULIA DEPUTY
 CECILE MARIE DUBOIS
 GRACE LOVELL ELGIN

NETTIE BRADLEY LORD
 FRANKIE BOWMAN MORRISON
 ISABEL JAMISON PANNAIR
 EVA LOUISE YEAGER **

Preston, Maryland
 Pittsburgh, Pennsylvania
 Roanoke, Virginia
 Cumberland, Maryland

SCHOOL OF PHARMACY

Graduate in Pharmacy

MARVIN JACKSON ANDREWS	Bristol, Tennessee
WILLIAM HAROLD BATT	Davis, West Virginia
GEORGE WILBUR BERGER	Baltimore, Maryland
EDWARD IRWIN BLAINE, JR.	Pocomoke City, Maryland
DUDLEY ASAHIEL BURROWS	Enfield, North Carolina
NICHOLAS JOSEPH COLUCCI	Stamford, Connecticut
HOWARD LEE GORDY	Laurel, Delaware
WILLIAM MICHAEL GOULD	Baltimore, Maryland
ARTHUR CLEO HARBAUGH	Hagerstown, Maryland
CARL MARKS HARMON	Dundalk, Maryland
LEROY SAVIN HECK	Baltimore, Maryland
DAVID HERMON	Baltimore, Maryland
MILTON L. HETTMAN	Baltimore, Maryland
CHARLES HOWARD HOPKINS	Baltimore, Maryland
MAX A. KRIEGER	Baltimore, Maryland
JENNIE KROOPNICK	Baltimore, Maryland
CARLOS ESTEBAN RIVAS LEIVA	San Luis, Cuba
ANDREW TOLSON LYON	Havre de Grace, Maryland
CHARLES WEEDE MARSH	Baltimore, Maryland
REUBEN BOWEN MOXLEY	Baltimore, Maryland
WILLIAM WALLACE PAYANT	Baltimore, Maryland
VINCENT JOSEPH PIRAINO	Baltimore, Maryland
JAMES JEROME RICHARDSON	Bel Air, Maryland
WILLIAM AUGUST RUFF	Baltimore, Maryland
LOUIS SCHAPIRO	Baltimore, Maryland
ROBERT SAMUEL SCHER	Baltimore, Maryland
CLAUDE MELVIN SMOAK	Bamburg, South Carolina
VIRGINIA GARTEN SOMERLATT	Cumberland, Maryland

Pharmaceutical Chemist

DONALD ALEXANDER SHANNON	Baltimore, Maryland
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** Miss Yeager died before graduating, but her diploma was issued and given to her parents.

MEDALS, PRIZES AND HONORS, 1922

Elected Members of the Phi Kappa Phi, The Honorary Fraternity

ALFRED SELLMAN BEST	BERTHA BRILL EZEKIEL
POUL GUNNI BUSCK	AUGUSTUS WEBSTER HINES
JOHN ALBERT BUTTS	JOHN HOWE PAINTER
FRANCIS DESALES CANTER	OTTO PHILLIP HENRY REINMUTH
HULDAH ELIZABETH ENSOR	JAMES HERBERT SNYDER
FRANCIS GEORGE EWALD	LAURENCE JANNEY STABLER

Alumni Association Medal for Excellence in Debate

GEORGE EDWARD GIFFORD, Rising Sun, Maryland

The Goddard Medal, for Excellence in Scholarship and Moral Character, to Student of Prince George's County, offered by

Mrs. Annie K. Goddard James

JOHN FRANCIS CLAGETT, Marlboro, Maryland

The Oratorical Association of Maryland Colleges offers each year Gold Medals for First and Second Places in an Oratorical Contest

Medal for First Place awarded to

ROBERT MALCOLM WATKINS, Mt. Airy, Maryland

Citizenship Medal offered by Mr. H. C. Byrd, Class of 1908

ROBERT NICHOLAS YOUNG, Washington, District of Columbia

Athletic Medal offered by the Class of 1908

HARRY EDWIN SEMLER, Hagerstown, Maryland

"President's Cup," for Excellence in Debate, offered by

Dr. H. J. Patterson

THE POE LITERARY SOCIETY

Company Sword offered by the University to the Captain of the Best Drilled Company

CAPTAIN PAUL SARDO FRANK, Company E

Gold Medal offered by the Class of 1899 for Excellence in Drill

PRIVATE CLYDE FAIRFAX WILMETH, Company E

Corporation Law Prizes offered by Prof. E. F. New

First Prize—JAMES EDWARD BURROUGHS, JR.

Second Prize—PAUL FREDERICK NEWLAND

War Department Awards of Commissions as Second Lieutenants in the Infantry Reserve Corps

MORRISON MACDOWELL CLARK	JAMES ATLEE RIDOUT
CHARLES EUGENE DARNALL	EDGAR FARR RUSSELL
EDWIN BENNETT FILBERT	HUGHES ADAMS SHANK
AUGUSTUS WEBSTER HINES	GEORGE FRANCIS SMITH
JESSE MARION HUFFINGTON	ROBERT NICHOLAS YOUNG
JOHN AUSTIN MORAN	GERALD GROSH REMSBERG
OTTO PHILIP HENRY REINMUTH	

Awards of Military Commissions

MORRISON MACDOWELL CLARK	Major
ROBERT NICHOLAS YOUNG	Captain
AUGUSTUS WEBSTER HINES	Captain
EDWIN BENNETT FILBERT	Captain
PAUL SARDO FRANK	Captain
GEORGE FRANCIS SMITH	Captain
HUGHES ADAMS SHANK	Captain
EDGAR FARR RUSSELL	Captain
JOHN AUSTIN MORAN	Captain
JAMES ATLEE RIDOUT	Captain
GERALD GROSH REMSBERG	Captain
OTTO PHILIP HENRY REINMUTH	Captain
JESSE MARION HUFFINGTON	Captain
GEORGE FINDLAY POLLOCK	First Lieutenant
KENNETH BALDWIN CHAPPELL	First Lieutenant
CHARLES EDWARD WHITE	First Lieutenant
JACKSON WARD WISNER	First Lieutenant
ALBERT GRAFTON WALLIS	First Lieutenant
JOHN PHILIP SCHAEFER	First Lieutenant
PETER THOMAS KNAPP	First Lieutenant
JOHN FRANCIS CLAGETT	First Lieutenant
GEORGE EDMUND GIFFORD	First Lieutenant
EVERETT CLAYTON EMBREY	Second Lieutenant
WALTER HEMPSTONE YOUNG	Second Lieutenant
HENRY MARVIN TERRY	Second Lieutenant
MASON CARPENTER ALBRITAIN	Second Lieutenant
LOREN FLETCHER SCHOTT	Second Lieutenant
ERNEST ALEXANDER GRAVES	Second Lieutenant
EDWARD MARSHALL RICHARDSON	Second Lieutenant
GEORGE ALLEN WICK	Second Lieutenant
RUSSELL EARL MARKER	Second Lieutenant
CHARLES SMALLWOOD COOK	Second Lieutenant
JOHN WESLEY MUMFORD	Second Lieutenant
MILBURNE WILLIAM JONES	Second Lieutenant
HOWARD INGHAM STATES	Second Lieutenant

HONORABLE MENTION

College of Agriculture

First Honors—BERTHA BRILL EZEKIEL, JAMES HERBERT SNYDER

Second Honors—HENRY JACOB GUREVICH

College of Arts and Sciences

First Honors—OTTO PHILIP HENRY REINMUTH, HYMAN EDMUND LEVIN

Second Honors—GEORGE NELSON SCHRAMM

College of Education

First Honors—HULDAH ELIZABETH ENSOR

College of Engineering

First Honors—PAUL GUNNI BUSCK

Second Honors—ALFRED SELLMAN BEST

School of Dentistry

University Gold Medal for Scholarship—GRAYSON WILBUR GAVER

First Honorable Mention—MYRON SAMSON AISENBERG

School of Law

Prize of \$100 for the highest average grade for the entire course

ROSZEL C. THOMSEN

Prize of \$100 for the most meritorious thesis—ROSZEL C. THOMSEN

School of Medicine

University Prize, Gold Medal—J. OGLE WARFIELD, JR.

Certificates of Honor

C. GLEN MCCOY

A. V. BUCHNESS

H. RAYMOND PETERS

ELIAS FREIDUS

T. NORWOOD WILSON

The Dr. Jose L. Hirsch Memorial Prize of \$50.00 for Excellence in Pathology during the second and third years

J. OGLE WARFIELD, JR.

School for Nurses

University of Maryland Nurses' Alumnae Association Scholarship to

Columbia University

GRACE LOVELL ELGIN

University of Maryland Nurses' Association Pin and Membership in the Association

FRANKIE BOWMAN MORRISON

School of Pharmacy

Gold Medal for General Excellence—LEROY SAVIN HECK

Simon Medal for Practical Chemistry—CHARLES WEEDE MARSH

Simon Medal for Practical Chemistry (1917)

WILLIAM WALLACE PAYANT

Junior Class, Honorable Mention

MRS. E. J. NORTON and MISS FRIEDA CHERTHOF

BATTALION ORGANIZATION FOR 1922-1923

Battalion Staff

P. S. FRANK, Lieut. Col., R. O. T. C., Unit Commander

G. F. POLLOCK, Major, R. O. T. C., Battalion Commander

J. P. SCHAEFER, Captain, R. O. T. C., Adjutant

R. L. RISSLER, First Lieutenant, R. O. T. C., Battalion Adjutant

COMPANY OFFICERS AND NON-COMMISSIONED OFFICERS

COMPANY A

J. W. WISNER

J. F. CLAGETT
A. G. WALLIS

J. W. MUMFORD
E. M. RICHARDSON

T. J. MCQUADE

L. F. MELCHIOR
H. M. WALTER

T. J. HOLMES
G. J. LUCKEY
N. T. MEEDS
D. D. BURNSIDE

F. L. BULL
C. CASTELLA
M. J. HORN
W. H. LEWIS
W. A. DECAINDRY
E. S. FORD
W. L. WICKARD
F. E. FABER
E. D. HUYETT
F. S. SCOTT
A. D. OSBORN
R. G. ORR
C. P. GLOVER
B. I. WATKINS
D. A. STALEY
W. S. FUNK

COMPANY B

Captains

E. C. EMBREY

First Lieutenants

W. H. YOUNG
G. A. WICK

Second Lieutenants

C. S. COOK
L. F. SCHOTT

First Sergeants

J. H. F. BITTNER

Platoon Sergeants

M. F. BROTHERS
H. L. MARSHALL

Sergeants

H. M. HOWARD
W. R. SANDERS
E. R. STEELE
R. G. CLAPP

Corporals

E. F. ZALESAK
W. E. DAUGHERTY
W. C. BINKLEY
J. F. DOUGALL
B. R. KING
H. R. ALDRIDGE
G. E. BOUIS
E. R. MELTON
J. D. MORRIS
C. K. STEWART
M. M. PRICE
T. B. MARDEN
J. W. JONES
J. W. SKIRVEN
J. MACKO
J. L. SWANK

COMPANY C

W. M. JONES

C. E. WHITE
K. B. CHAPPELL

E. A. GRAVES

B. H. ROCHE

J. L. MECARTNEY
R. P. TAYLOR

S. C. ORR
J. M. SENEY
R. M. GRAHAM
O. H. GREAGOR

J. F. SULLIVAN
G. LEWIS
F. H. ROGERS
W. M. KLINE
R. G. COOK
S. L. POWERS
G. P. GARDNER
E. F. JUSKA
E. H. MILLER
C. PEAKE
J. H. RUTTER
I. E. PEEBLES
M. L. BOWSER
R. D. BUCKMAN
C. P. MCFADDEN
J. H. BAKER

Register of Students

COLLEGE OF AGRICULTURE

SENIOR CLASS

Burdette, Robert C., Gaithersburg	Lescure, John M., Harrisburg, Pa.
Dunning, Ernest C., Govans	Melroy, Malcolm B., Washington, N. J.
England, C. Walter, Rising Sun	Miller, Thomas K., Havre de Grace
Fuhrman, Ruth, Washington, D. C.	Mumford, John W., Jr., Newark
Gurevich, Morris J., Washington, D. C.	Pollock, George F., Boyds
Hancock, Hugh, Berwyn	*Shaffer, Harry H., Upperco
Harley, Clayton P., College Park	Skilling, Francis C., Baltimore
*Hawthorne, Noah B., Washington, D. C.	Smith, George F., Big Spring
Huffard, Charles L., Wytheville, Va.	Trivanovitch, Vaso, Zagreb, Yugoslavia
Troy, Virgil S., Centreville	

JUNIOR CLASS

Bacon, Rankin S., Glencoe	Miller, Robert H., Jr., Spencerville
Barton, J. Frank, Centreville	Nichols, Norris N., Delmar, Del.
Duvall, William M., Baltimore	Nichols, Robert S., Delmar, Del.
Embrey, Everett C., Washington, D. C.	Penn, William B., Clinton
Endslow, David K., Mt. Joy, Pa.	Powell, William D., Woodsboro
Geist, Charles H., Upperco	Prince, Charles E., Baltimore
Hale, Roger F., Freeland	Remsberg, Harold A., Middletown
*Harper, Floyd H., College Park	Roche, B. Hamilton, Baltimore
*Holland, Arthur H., Cartersville, Va.	Rothgeb, Russell G., Washington, D. C.
*Ludlum, Samuel L., Chevy Chase	Sleasman, Arthur R., Smithburg
McQuade, Thomas J., Washington, D. C.	Weber, Wilhelm H., Oakland
Mecartney, John L., Vacluse, Va.	Yates, Harry O., Abington, Pa.

SOPHOMORE CLASS

Anderson, Wilton A., Bristol, Tenn.	*Lowman, Clarence A., Funkstown
Baker, John H., Winchester, Va.	McKeever, Galen W., Kensington
Bouis, George E., Mt. Washington	*Mitchell, William, Riverdale
Bromley, Walter D., Pocomoke	Myers, Victor S., Waynesboro, Pa.
Buckman, Horace D., Accotink, Va.	Nielson, Knute W., McLean, Va.
Bull, Frederick L., Pocomoke	*Parlett, William A., College Park
*Church, Carey F., College Park	Pearce, Wilbur, Sparks
Cluff, Francis P., Pocomoke	Price, M. Myron, Queenstown
Dawson, Walker M., Silver Spring	*Shoemaker, Charles, Bethesda
Dietz, George J., Baltimore	Skirven, James F., Chestertown
Dorsett, Telfair B., Forestville	Sullivan, John F., Washington, D. C.
England, Howard A., Rising Sun	Summerill, Richard L., Penn's Grove, Pa.
Faber, John E., Washington, D. C.	Vivanco, Carlos D., Arequepa, Peru
Heine, George R., Washington, D. C.	Walker, Dwight T., Mt. Airy
*Hevessy, Michael, Gloucester Point, Va.	*Whiteford, Michael W., Whiteford
*Hohman, Charles W., West, W. Va.	Williams, Richard E., Washington, D. C.
*Hottel, John T., Bealeton, Va.	*Wood, Ellsworth, Washington, D. C.
Hough, John F., Mt. Rainier	*Worthington, Leland G., Hagerstown
*Lincoln, Leonard B., Takoma Park	Zalesak, Emanuel F., Washington, D. C.

*Denotes students detailed to the University by the Veteran's Bureau.

FRESHMAN CLASS

Abrams, George J., Washington, D. C.	King, Eugene W., Branchville
Ady, Albert A., Sharon	Lloyd, Harry E., Sparks
Anderson, James H., Washington, D. C.	Lupton, Helen A., Washington, D. C.
*Banfield, Frank W., Takoma Park, D. C.	Mankin, W. Douglas, Washington, D. C.
Barron, Edward M., Hyattsville	Matthews, Malcolm G., Pocomoke
Bauer, Paul E., Washington, D. C.	McDowell, Charles J., Washington, D. C.
*Bonnett, Harold M., E. St. Johnsbury, Vt.	McGlone, Joseph L., Baltimore
Brinsfield, C. Sedgewick, Cordova	*Moffitt, William J., Beltsville
Buchheister, Gustav A., Leeland	Newcomer, L. E., Harper's Ferry, W. Va.
Bye, John M., Denton	Price, Kent S., Centreville
*Carter, John H., Chilhowie, Va.	*Reed, Emmons H., Denton
Conklin, Charles W., Smithfield, Va.	Rice, Warren W., Sylmar
*Crotty, Leo A., Utica, N. Y.	Riphey, Aaron S., Chevy Chase, D. C.
Ditman, Lewis P., Westminster	*Ritter, Floyd V., Middletown, Va.
Downey, Mylo S., Williamsport	Ronsaville, Edwin W., Kensington
Duvall, Archie E., Naylor	Smith, Paul W., Washington, D. C.
Duvall, Peter W., Croom	*Stanley, Edward A., Bluefield, W. Va.
Endslow, Joseph S., Mt. Joy, Pa.	Stokes, George C. A., Cockeysville
Ensor, Lionel K., Sparks	Stoudt, Paul M., Hershey, Pa.
Evans, William H., Pocomoke	Supplee, William C., Washington, D. C.
Ganoza, Luis F., Tripillo, Peru	*Taylor, Letha E., Wilmington, N. C.
Hartshorn, Robert H., Washington, D. C.	*Trower, Hugh C., Norfolk, Va.
Hoopes, J. D., Bel Air	Walker, Earnest, Mt. Airy
Hubbard, Harry S., Cordova	Whaley, Milton S., Washington, D. C.
Hungerford, Vincent B., Marshall Hall	Wilson, John K., Pylesville
Kelley, Thomas C., Washington, D. C.	Worrlow, George, North East

TWO-YEAR AGRICULTURE CLASS

*Allen, Kenneth, Brandywine	*Fletcher, Raymond M., Berwyn
*Beall, Morris, Mt. Rainier	*Foote, Chester F., Washington, D. C.
*Boender, John A., Laurel	*Ford, Eli H., Virgilina, Va.
*Bollinger, Perry R., Reisterstown	*Forsyth, Lewis V., Berwyn
*Bray, Walter C., Emporia, Va.	*Foster, Paul P., Berwyn
Butts, Herbert R., Marydel	*Garrett, William N., Ballston, Va.
*Callis, Cecil R., Washington, D. C.	*Graves, Harvey C., Branchville
*Campbell, Thomas A., Lanham	Gray, Marshall C., Ironsides
*Casey, Charles, Wheeling, W. Va.	*Grayson, Edley H., Columbia Station, Va.
*Chassagne, Leo J., Highlandtown	*Griefu, John, College Park
*Cherry, Joseph C., Berwyn	*Grimm, Paul H., Trego
Clymer, Lee, Rawlings	*Grosskurth, William F., Washington, D. C.
Coleman, Francis G., Baltimore	*Grove, Claude M., Winchester, Va.
*Collins, George T., Roslyn, Va.	*Guilday, Michael, College Park
*Connors, Paul M., Washington, D. C.	*Harlan, James C., Baltimore
*Conte, Marion V., Norfolk, Va.	Harry, Lawrence W., Washington, D. C.
*Crenshaw, John A., Clover, Va.	*Hamlin, Harry, Silver Spring
*Crews, Chas. W., St. Mary's City	*Hearold, John W., Miskinon, Va.
*Crozier, Henry T., Ballston, Va.	*Heath, Frank M., Silver Spring
*Dawson, James H., Falls Church, Va.	*Hedberg, Edwin L., Washington, D. C.
*Decker, Henry, Charleroi, Pa.	*Hediger, Frank J., Wheeling, W. Va.
*Dennis, General E. H., Greenrich, Va.	*Hicks, Harry W., Kernstown, Va.
*Dobbins, William E., College Park	*Horak, Anton, Brooke, Va.
*Dodson, William A., College Park	*Johnson, Leo C., Falls Church, Va.
*Duke, John, Baltimore	Joyce, Fletcher S., Millersville
*Ferguson, Walter M., Berwyn	*Kelley, Frank J., Beltsville
*Fitzwater, Oscar, Moorefield, W. Va.	*King, David, Monrovia
*Flannery, Michael J., College Park	*Lample, Charles S., Baltimore

*Leverage, Clarence J., Easton
 *Lint, David L., Washington, D. C.
 *Llewellyn, P. Carrington, Esmont, Va.
 *Lynn, Charles S., Livia, Ky.
 *McAvoy, James R., New York City
 *McCarthy, Harry L., Brookville
 *McGarvey, John, College Park
 *McLain, Charles L., Washington, D. C.
 *McNabb, Charles G., Washington, D. C.
 *Manthey, Felix, College Park
 *Martin, Virgil E., Atlanta, Ga.
 *Mauzy, James L., Herman, W. Va.
 *Mess, George B., Washington, D. C.
 *Morsell, John B., Bowens
 *Mortimer, Walter S., Neavitt
 *Murphy, Thomas W., New Britain, Conn.
 *Myers, John A., Tom's Brook, Va.
 *Nace, Jesse J., Washington, D. C.
 *Newberry, James R., Macon, Ga.
 *Norris, Elmer A., Berwyn
 *Ollerenshaw, James, Washington, D. C.
 *O'Rourke, James H., Lorton, Va.
 *Osborne, Herman B., Baltimore
 *Oswald, Louis H., Ballston, Va.
 *Otter, John C., Raspeburg
 *Parr, Herbert F., Washington, D. C.
 *Persinger, Harry B., Berwyn
 *Peirce, John R., Washington, D. C.
 *Poole, Harry C., Beltsville
 *Poppen, Alvin W., Toluca, Va.
 *Porter, Ward W., Washington, D. C.
 *Potter, Albert R., Trappe

UNCLASSIFIED

Beall, Clarkson J., Morristown, N. J.
 Clark, Glen, Clarksville
 Collier, Jesse A., Snover, Michigan
 Crain, Robert, Jr., Washington, D. C.
 Higgins, Warren F., Hyattsville

WINTER SHORT COURSE IN DAIRYING

Bayne, Edgar C., Washington, D. C.
 Bryant, Richard A., Belle Grove
 Flanagan, Allen L., Woodsboro
 Jones, M. Parton, Shepherdstown, W. Va.
 Kaufman, Edward L., Baltimore

COLLEGE OF ARTS AND SCIENCES

SENIOR CLASS

Ady, Elizabeth G., Sharon
 Barnes, Benjamin L., Princess Anne
 Besley, Arthur K., Baltimore
 Blandford, Mildred C., College Park

*Richards, Felix W., Washington, D. C.
 *Richards, Philip W., White Plains
 *Richardson, Harry F., Berwyn
 *Rodeheaver, Delbert C., Oakland
 *Rowe, George, Brentwood
 *Ryan, Bernard T., Washington, D. C.
 *Ryon, Matthew G., Clement's P. O.
 *Schmedegaard, G. W., Washington, D. C.
 Schrider, Paul, Takoma Park
 *Senne, Henry R., Accotink, Va.
 *Simpich, Ira M., Landover
 *Snyder, Jesse E., Washington, D. C.
 *Sprinkle, Paul C., Washington, D. C.
 *Stauffer, Charles A., Baltimore
 Stewart, Harry A., Rustburg, Va.
 *Strathman, George F., Baltimore
 *Sullivan, Jeremiah J., Branchville
 *Tait, George S., Fairfax, Va.
 *Thompson, Franklin, Baltimore
 *Tobin, William J., Washington, D. C.
 *Vaughn, William J., Lotta, N. C.
 Vick, Clyde M., Baltimore
 *Vigus, Edwin E., Deposit, N. Y.
 *Walker, Francis M., Washington, D. C.
 *Walker, Mitchell P., Birmingham, Ala.
 *Wardles, William I., Anacostia, D. C.
 *White, George A., Winchester, Ind.
 *Wiley, Benjamin H., Bittering
 *Wilson, Aseal S., Phoenix
 *Woodward, Amos R., Woodbine
 *Wootten, John F., Berwyn

Kemp, Leonard, Relay
 Marty, Ivan M., Roland Park
 Richardson, Edward M., Washington, D. C.
 Ross, Marion A., Princess Anne
 Rowe, Taylor P., Fredericksburg, Va.
 Smith, Edward J., Riverdale

Linthicum, Walker S., Mt. Airy
 Martin, John A., Smithsburg
 Roller, Jared S., Woodstock
 Stevens, John H., Pocomoke City
 Swanson, Robert, Upper Marlboro
 Trittijoe, Ralph W., Ijamsville

Chappell, Kenneth B., Kensington
 Clagett, John F., Upper Marlboro
 Daskais, Morris H., Baltimore
 Downin, Lauran P., Hagerstown
 Ensor, Zita, Sparks
 Filbert, Edwin B., Baltimore
 Fitzgerald, Thomas H., Princess Anne
 Gifford, George E., Rising Sun
 Gordon, Isador, Riverdale
 Graves, Ernest A., Washington, D. C.
 Jones, William M., Chestertown
 Keene, Victor H., Snow Hill
 Kemp, Allen D., Frederick
 Lesure, William J., Harrisburg, Pa.
 Marker, Russell E., Hagerstown
 Mathias, Leonard G., Hagerstown

Beers, Wilson C., Waterbury, Conn.
 *Bragg, John H., Washington, D. C.
 Brewer, Virginia W., College Park
 Chase, Ralph H., Washington, D. C.
 Clay, Catherine L., College Park
 Darcy, George D., College Park
 Gambrell, Charles M., Pittsburgh, Pa.
 Gemmill, William F., Baltimore
 Harned, Frank M., Merchantsville, N. J.
 Hedgecock, Leland M., Takoma Park
 Heidelberg, Henry R., Catonsville
 Hitchcock, Albert E., Washington, D. C.
 Holmes, Thomas J., Takoma Park
 House, Kingsley A., College Park
 Knotts, James T., Jr., Sudlersville
 Leshner, Dean S., Williamsport
 Lininger, Harry C., Westernport

Atkinson, Rollins J., Frederick
 Berger, William A., Bloomfield, N. J.
 Binkley, Walter C., State Line, Pa.
 Blandy, Thelma, Helena, Mont.
 Bowen, George C., Hyattsville
 Burger, Joseph C., Washington, D. C.
 Campbell, Bennett K., Baltimore
 Cannon, James H., Hyattsville
 Chasser, Rudolph R., Homestead, Pa.
 Clapp, Houghton C., Washington, D. C.
 Clarke, Anna P., Hyattsville
 Coe, Grace, Berlin
 Cook, Robert, Lanham
 Daugherty, Walter E., Washington, D. C.
 Demio, Alexander W., New Kensington, Pa.
 Dorsey, Anna H. E., Ellicott City
 Dougall, James L., Garrett Park
 Duke, Henry A., Durham, N. C.
 Flanagan, Virginia M., McKeesport, Pa.
 Flenner, Martha E., Glen Mills, Pa.

Mayers, Ruth E., Washington, D. C.
 Moore, John F., Washington, D. C.
 Nisbet, Andrew N., Baltimore
 Porter, Robert G., Hyattsville
 Posey M. Winfield, La Plata
 Remsberg, Gerald G., Braddock Heights
 Reppert, Ruth I., Washington, D. C.
 Rissler, Raymond L., Washington, D. C.
 Shank, Hughes A., College Park
 *Shepherd, Matson W., Berwyn
 Simmons, Lawrence D., Takoma Park
 Spence, Charlotte C., College Park
 Sturgis, William C., Snow Hill
 Thompson, Ruth A., Washington, D. C.
 Watkins, Robert M., Mt. Airy
 White, Charles E., College Park

JUNIOR CLASS

Luckey, George J., Trenton, N. J.
 Nemphos, Peter C., Baltimore
 Newland, Paul F., Bristol, Tenn.
 Reisinger, John C., Washington, D. C.
 Ruiz, Emilio, Arecibo, Porto Rico
 Shank, James O. C., Smithsburg
 Spence, Virginia I., College Park
 Swank, James L., Elk Lick, Pa.
 Swartzwelder, W. R., Mercersburg, Pa.
 Wack, Frederick V., Point Pleasant, N. J.
 Walsh, Humphrey M., Washington, D. C.
 Walter, Henry M., Washington, D. C.
 Wardwell, Aubrey S., Washington, D. C.
 Warrenfeltz, Mary S., Hagerstown
 White, John I., Washington, D. C.
 Zepp, Willard E., Clarksville

SOPHOMORE CLASS

Ford, Edwin L., Washington, D. C.
 Froelich, Wilfred L., Crisfield
 Gambale, Francis J., Waterbury, Conn.
 Greager, Oswald H., New York City
 Haywood, John H., Washington, D. C.
 Hill, Minnie M., Washington, D. C.
 Horn, Millard J., Washington, D. C.
 Hubbard, James H., Cordova
 Jones, Joseph W., Washington, D. C.
 Juska, Edward F., Elberon, N. J.
 Keane, John P., Sandy Hook, Conn.
 Kwik, Pock H., Djodjakarta, Java
 Lankford, J. Miles, Pocomoke
 Lewton, Myrtle H., Takoma Park
 Littman, Isaac, College Park
 Longridge, Joseph C., Barton
 McClung, Marvin R., Norrisville
 McDonald, C. Kingsley, Barton
 Mace, John, Jr., Cambridge
 Macko, Joseph A., Homestead, Pa.

Marden, Tilghman B., Annapolis
 Marshall, Housden L., Washington, D. C.
 Massicott, Marie M., Columbus, Ga.
 Merrill, William H., Pocomoke
 Myers, Brayton O., Washington, D. C.
 Nash, Mabel M., Berwyn
 Nichols, Marshall H., Clarksville
 Padlibsky, Solomon H., Charleston, W. Va.
 Parks, Leston C., Bristol, Tenn.
 Peake, Clarence W., Aberdeen
 Peebles, Irvin, Lonaconing
 Phillips, Gerald S., Hagerstown
 Powers, Selwyn L., Hyattsville
 Pugh, Edward L., Chevy Chase
 Rutter, Joseph H., Baltimore
 Ryon, Allison F., Waldorf
 Schmidt, George H., Baltimore
 Schotta, Victor T., Oellc.

*Scott, Edward A., Bristol, Tenn.
 Scott, Fred S., Galax, Va.
 Scott, William M., Princess Anne
 Singer, Jacob J., Baltimore
 Smith, George H., Taft, Va.
 Stambaugh, Bruce T., Woodsboro
 Stewart, Charles K., Hillsboro
 Tan, Felix H., Buitenzorg, Java
 Tan, Joseph H., Fukien, China
 Taylor, Donald S., Philadelphia, Pa.
 Taylor, Ritchie P., Washington, D. C.
 Werner, Sidney E., Baltimore
 Wheaton, Isaac E., Greenwich, N. J.
 White, Russell B., Kittanning, Pa.
 Wickard, Walter L., McKeesport, Pa.
 Wilson, N. John, Frederick
 Wohlreich, Joseph J., Newark, N. J.
 Wollak, Theodore M., Baltimore

FRESHMAN CLASS

Abrecht, George F., Frederick
 Armstrong, William P., Chestertown
 Baber, Richard H., Riverdale
 *Bauer, Joseph, Blackstone, Va.
 Beatty, William P., Long Branch, N. J.
 Black, James W., Cecilton
 Blackstone, Robert D., Jr., Palmer's
 Bogley, Preston P., Washington, D. C.
 Bounds, James A., Sharptown
 Bounds, James H., Salisbury
 Brightman, Carl G., Jr., Baltimore
 Brocato, Charles V., Baltimore
 Browne, Tom A., Chevy Chase
 Carter, Calvin J., Catonsville
 Chappius, Maurice K., Washington, D. C.
 Christmas, Edward A., Upper Marlboro
 Clark, Alfred H., Washington, D. C.
 Clement, Eugenia W., Washington, D. C.
 Cohen, Alexander, Perth Amboy, N. J.
 Comer, Walter R., Frederick
 Cowan, William C., Roslyn
 Crowther, Aloha H., Laurel
 Danner, Edward G., Unionville
 Deibert, Elmore R., Elkton
 Dement, Paul E., Branchville
 Dent, Wade, Clinton
 Dent, T. Hatch, Oakley
 Dow, Scott H., Newburyport, Mass.
 Ennis, John, Pocomoke
 Evans, Edward T., Cumberland
 Evans, George W., Pocomoke
 Fisher, Irwin H., Baltimore
 Fleming, Christian M., Baltimore
 Fogg, George W., Bangor, Me.
 Gary, Edward T., Washington, D. C.
 Gillespie, Victor P., Sudlersville
 Green, Harry J., Baltimore

Greenfield, C. Myron, Takoma Park
 Gundry, Jesse K., Catonsville
 Hall, Irving, Chevy Chase
 Hawkshaw, John W., Hyattsville
 Heber, Carl H., Cumberland
 Hernblom, Theodore E., Olean, N. Y.
 Herzog, Frederick C., Washington, D. C.
 Hirst, Edwin D., Cambridge
 Holmes, George K., Washington, D. C.
 Hopwood, Mason H., Washington, D. C.
 Huffington, Paul E., Allen
 Kaufman, Edward L., Baltimore
 Kaufman, Max, Brooklyn, N. Y.
 Kay, George F., Elk Mills
 Langer, Clayton W., Washington, D. C.
 Lanigan, John R., Washington, D. C.
 Leginus, Peter G., Wyoming, Pa.
 Leithiser, Eldon F., Havre de Grace
 Lohse, Edward M., Washington, D. C.
 Longyear, Edward B., Poplar Hill
 McQuain, James, Parkersburg, W. Va.
 Marriott, Paul M., Cumberland
 Mason, John E., Newark
 Matsumura, Junichi, Mari, Hawaii
 Meloy, William C., Washington, D. C.
 Mendels, Joel, Baltimore
 Merrick, Charles H., Barclay
 Miller, Clarence L., Baltimore
 Miller, Lewis A., Hagerstown
 Moretti, John J., Newark, N. J.
 Ninas, George A., Gaithersburg
 O'Neil, Catherine A., Bladensburg
 Osborn, A. Downey, Point Pleasant, N. J.
 Osborn, Samuel S., Point Pleasant, N. J.
 Parsons, Arthur C., Ormsby, Pa.
 Pear, Henry R., Baltimore
 Pearce, Clyde A., Ocean Grove, N. J.

Pfeiffer, Karl G., Washington, D. C.
 Porton, Harry P., Washington, D. C.
 Pyles, Joseph T., Frederick
 Ray, John J., Waterbury, Conn.
 Reading, Hugh D., Rockville
 Rice, John E., Frederick
 Richardson, Louise, Washington, D. C.
 Rogers, Annabell, Hyattsville
 Ryon, William A., Washington, D. C.
 Schaefer, Herbert S., Riverdale
 Scott, William R., Wytheville, Va.
 Shipley, Ernest H., Frederick
 Silver, Abraham, New Haven, Conn.
 Somerville, Duncan S., Cumberland
 Spence, Mary, College Park
 Spinney, Archie B., Baltimore
 Staley, Ira M., Knoxville
 Stein, Joseph M., Camden, N. J.

Stoner, Kenneth G., Hagerstown
 Strite, John H., Clear Spring
 Sumner, Howard C., Washington, D. C.
 Taylor, Thelma I., Washington, D. C.
 Troxell, Walter H., Northampton, Pa.
 Truesdell, Philip B., Waupaca, Wis.
 Wallace, Sarah O., Landover
 Waters, Douglas G., Germantown
 Whaley, Mildred C., Washington, D. C.
 Whelpley, Louisa R., Riverdale
 Whiteford, William H., Baltimore
 Wilson, Nathan J., Waterbury, Conn.
 Wilton, E. Craig, Washington, D. C.
 Winkjer, Thelma H., Washington, D. C.
 Wishnefsky, Jacob, Paterson, N. J.
 Wolf, John M., Washington, D. C.
 Wright, Nadia V., Washington, D. C.
 Young, Dorothy O., Washington, D. C.

UNCLASSIFIED

Bohannon, William T., Baltimore
 Branner, Claude E., Pocomoke
 Clay, Lucy, College Park
 Coney, William, Jr., Roland Park
 Crisp, Edwin S., Washington, D. C.
 Crooks, William S., Baltimore

Henderson, George W., Washington, D. C.
 House, Hugh O., College Park
 MacDougall, Alan F., Merchantville, N. J.
 Malone, Ruth F., College Park
 Moss, W. Wade, Baltimore
 Schott, Loren F., Washington, D. C.

Extension Courses in Commerce

SENIOR CLASS (Day)

Bodin, A. J., Baltimore
 Cummons, Owen D., Batimore

Edmeades, William T., Jr., Baltimore
 Hughes, Earle R., Baltimore

JUNIOR CLASS (Day)

Bell, Wylie K., Baltimore
 Bressler, David R., Baltimore
 Darsch, Earl Philip, Baltimore
 Goodwin, Leon F., Baltimore
 Gray, Arthur W., Baltimore
 Kennedy, John M., Baltimore
 King, Howell A., Baltimore

Liles, Robert S., Baltimore
 Lynch, Robert S., Baltimore
 Schooler, Benjamin H., Catonsville
 Silverstein, Jack, Baltimore
 Stunz, Robert Edward, Lansdowne
 Sullivan, Joseph L., Baltimore
 White, Porter T., Baltimore

SOPHOMORE CLASS (Day)

Bradfield, Norris, Baltimore
 Bridges, Thomas F., Baltimore
 Buckey, Charles G., Frederick
 Canton, W. L., Baltimore
 DiPaula, Joseph S., Baltimore
 Goldberg, Samuel Robert, Baltimore
 Hosen, Eli, Baltimore
 Jones, Norman M., Baltimore

Kelley, William B., Baltimore
 McClyment, W. Herbert, Baltimore
 Odendhal, Sebastien, Jr., Baltimore
 Robinson, J. O., Baltimore
 Robinson, M. A., Baltimore
 Sheats, A. James, Baltimore
 Smith, Nathan, Baltimore
 Strouse, Howard S., Baltimore
 Sullivan, D. Bradley, Baltimore

FRESHMAN CLASS (Day)

Beyer, Herbert G., Baltimore	Masters, Julian J., Baltimore
Clemens, Theodore R., Baltimore	Ralston, Frank J., Baltimore
Feldman, Max, Baltimore	Robinson, Russell C., Baltimore
Gould, Helen, Baltimore	Stein, Leon W., Baltimore
Hobson, William C., Baltimore	Thomas, L. G., Baltimore
Holmslykke, Christian, Baltimore	Weisman, Benjamin, Baltimore
Jones, Norman Lee, Baltimore	Whitehurst, Francis DeP., Baltimore
Krantz, John C., Jr., Baltimore	Wilner, Maurice A., Baltimore

Extension Courses in Commerce

GRADUATE STUDENT (Evening)

Bolstler, Eugene, Baltimore, Md.

SENIOR CLASS (Evening)

Davis, Clarence E., Washington, D. C.	Knabe, Lloyd C., Baltimore
Euchtman, Joseph, Baltimore	Koch, Catharine M., Baltimore
Fagan, Jacob B., Baltimore	Miller, Elizabeth, Baltimore
Garner, J. Harry, Baltimore	Needelman, Hyman, Baltimore
Jackson, Howard E., Baltimore	Schwarz, H. A., Baltimore
Johnson, George E., Washington, D. C.	Sydow, Charles B., Washington, D. C.
Keller, Frank R., Washington, D. C.	Worley, Joseph F., Washington, D. C.

JUNIOR CLASS (Evening)

Abramson, Hyman, Baltimore	Gilbert, O. E., Baltimore
Clemens, M. A., Baltimore	Levinson, William G., Baltimore

SOPHOMORE CLASS (Evening)

Albrecht, W. T., Baltimore	Mallet, Victor J., Baltimore
Appel, Louis C., Baltimore	Manekin, Leonard, Baltimore
Baddock, Herman V., Baltimore	Milener, Eugene D., Jr., Baltimore
Bishop, Mark Z., Baltimore	Miller, Harry, Baltimore
Chayt, Leon, Baltimore	Monoker, Harry, Baltimore
Cohen, Max, Baltimore	Nemphos, P. Charles, Baltimore
Dauer, William F., Baltimore	Neumann, Herbert E., Baltimore
Davis, Ben, Baltimore	Pullen, Frank H., Baltimore
Dawson, C. Everett, Baltimore	Rapperport, Albert A., Baltimore
Elton, George R., Baltimore	Rowles, L. B., Baltimore
Friedman, Nathan I., Baltimore	Sanford, Vernon E., Baltimore
Wheeler, Gleichman R., Baltimore	Schindler, Nathan, Baltimore
Griffin, James A., Baltimore	Schmidt, Oswald, Baltimore
Heinmiller, Paul, Baltimore	Shevitz, Max S., Baltimore
Hlavin, J. A., Baltimore	Sindall, J. Wesley, Baltimore
Kramer, W. H., Baltimore	Snyder, Benjamin, Baltimore
Loppe, Cornelius A., Baltimore	Stange, Arbutus, Baltimore
Lindsay, George E., Baltimore	Stigile, Cecil M., Baltimore
Lesnar, Maurice, Baltimore	Tharle, Herbert D., Baltimore
McBride, Charles L., Baltimore	Vaeth, James E., Baltimore
McCahan, Robert S., Linthicum Heights	von Briesen, Roy, Baltimore
McKewen, John L., Baltimore	Williams, Nat, Baltimore
Madigan, Margaret M., Baltimore	Wright, Millard Fillmore, Baltimore

FRESHMAN CLASS (Evening)

Andriekas, Clement, Baltimore	Harant, John J., Baltimore
Armstrong, J. Elwood, Jr., Baltimore	Harrington, G. Shepard, Baltimore
Austin, Frank A., Baltimore	Hart, Kirke M., Baltimore
Baldwin, Eugene F., Baltimore	Kaminsky, Oscar R., Baltimore
Benesch, Isadore, Baltimore	Kaspar, Charles J., Baltimore
Berlin, Herbert, Baltimore	Kramer, Louis Benjamin, Baltimore
Bernstein, Robert, Baltimore	Landrus, Frederick C., Baltimore
Bosch, Harry, Baltimore	Larson, Oscar Theodore, Baltimore
Bucher, David, Upperco	Lattier, George Frederick, Baltimore
Busch, Alfred D., Baltimore	Levitt, Maurice M., Baltimore
Byrd, William Earl, Baltimore	Lewis, Herman M., Baltimore
Byrnes, Bernard J., Baltimore	McCusky, Eleanor, Baltimore
Campbell, Donald R., Baltimore	McDonald, Thomas Francis, Baltimore
Chenowith, Elmer E., Baltimore	Manfuso, J. G., Baltimore
Cohen, S. J., Baltimore	Meijer, Jacob H., Baltimore
Coleman, Samuel A., Dundalk	Millison, G. Harry, Baltimore
Collins, Owen L., Baltimore	Moan, Chas. S., Baltimore
Conley, Alonzo J., Baltimore	Moshkevich, Leon, Baltimore
Crosby, Wilbur C., Baltimore	Naegle, Joseph A., Baltimore
Darsch, G. M., Baltimore	Norris, George W., Baltimore
Dent, Benjamin B., Baltimore	Otto, Charles W., Baltimore
Dent, Richard D., Baltimore	Payant, W. Wallace, Baltimore
Diehl, George C., Jr., Baltimore	Pickus, Morris, Baltimore
Diver, Grant, Baltimore	Porter, Kenneth, Baltimore
Diver, John H., Baltimore	Prodoehl, Emile H., Baltimore
Donoway, Harry S., Baltimore	Ripple, Walter W., Linthicum Heights
Eckhardt, F. S., Glyndon, Md.	Rothaus, Julius, Baltimore
Eichert, Bruno, Baltimore	Rothbaum, Daniel, Baltimore
Elliott, William J., Baltimore	Rubenstein, Sidney S., Baltimore
Eskridge, Ira E., Baltimore	Schapiro, Harry Bernard, Baltimore
Fairall, John T., Baltimore	Seidel, Morris, Baltimore
Farber, Ellis R., Baltimore	Seim, William, Baltimore
Farbman, Joseph L., Baltimore	Shipley, Samuel K., Baltimore
Finifter, Joseph, Baltimore	Smith, Albert E., Baltimore
Frick, Frederick M. W., Baltimore	Smith, Walter K., Baltimore
Friedmann, Alan, Baltimore	Stutman, William, Baltimore
Funk, James M., Baltimore	Taylor, Louis T., Baltimore
Gately, Frank Bernard, Jr., Baltimore	Thau, Oscar F., Baltimore
Geraghty, James J. A., Baltimore	Trageser, C. A., Baltimore
Ginsberg, Alexander, Baltimore	Walton, William Ramsey, Jr., Baltimore
Goldenberg, Jack, Baltimore	Weber, Gerald M., Baltimore
Goldman, Rose, Baltimore	Weitzman, Theo., Baltimore
Goncharsky, Isidore H., Baltimore	Winand, William T., Baltimore
Greenfield, J. Chas., Annapolis	Wright, Edwin Q., Baltimore
Gutberlet, Irvin W., Baltimore	Yates, James Roger, Baltimore

UNCLASSIFIED (Evening)

Alperstein, Samuel L., Baltimore	Barnickol, Frank G., Baltimore
Anderson, Marvin A., Gambrills, Md.	Behler, William H., Baltimore
Andrews, Charles E., Baltimore	Benson, James L., Baltimore
Baer, Blankard F., Raspeburg, Md.	Blair, Henry D., Baltimore
Baker, Atta M., Baltimore	Blight, Howard N., Baltimore
Baker, Frank M., Jr., Baltimore	Blumenfeld, Irvin, Baltimore
Baker, Henry S., Baltimore	Booth, Lawrence R., Baltimore
Baker, Morris, Baltimore	Bond, Virginia C., Cockeysville
Baldwin, Dorothy M., Baltimore	Bosz, Adam, Baltimore

Brady, Norman C., Baltimore
 Bremer, Henry F., Jr., Baltimore
 Brooks, William E., Pikesville
 Brown, L. W., Jr., Baltimore
 Calwell, Walter S., Baltimore
 Caplan, Howard, Baltimore
 Carroll, James C., Baltimore
 Carstens, G. W., Jr., Baltimore
 Carter, Joseph L., Glen Burnie
 Carter, Norra V., Baltimore
 Cassen, John S., Towson
 Chernak, Anna, Baltimore
 Clemson, W. B., Baltimore
 Cline, Elizabeth T., Baltimore
 Cohen, Anna, Baltimore
 Cole, Anna, Baltimore
 Collins, Margaret A., Baltimore
 Connelly, Helen K., Baltimore
 Cook, Chas. H., Baltimore
 Corey, John N., Baltimore
 Corbin, Clinton W., Baltimore
 Dackhorn, William C., Baltimore
 deLauder, Thomas A., Baltimore
 Deussen, Henry, Baltimore
 Donlan, Lullus I., Baltimore
 Dudley, Katherine, Baltimore
 Duitscher, Hannah, Baltimore
 Eichelberger, F. S., Glen Burnie
 Emrich, William F., Baltimore
 Engle, Kenneth, Baltimore
 Faimann, Amos V., Baltimore
 Fedder, William C., Baltimore
 Feldman, Charles A., Baltimore
 Feldman, Reba B., Baltimore
 Foard, J. Stanley, Baltimore
 Fort, Wetherber, Baltimore
 Fox, Lillian L., Baltimore
 Gable, Clara L., Baltimore
 Gerber, David, Baltimore
 Gilman, Miriam, Baltimore
 Ginsburg, Herman R., Baltimore
 Gischel, Anna K., Baltimore
 Glantz, Irving P., Baltimore
 Goldstein, Dr. Albert E., Baltimore
 Goldstein, Elsie M., Baltimore
 Goldstein, Herman, Baltimore
 Goldstein, Lina, Baltimore
 Gore, Nellie B., Baltimore
 Gore, S. Marie, Baltimore
 Gouline, Jeanne B., Baltimore
 Griffith, R. S., Baltimore
 Griffith, S., Baltimore
 Grinnalds, Jefferson C., Baltimore
 Grossman, Gertrude M., Baltimore
 Hankin, David, Baltimore
 Hargett, A. E., Baltimore
 Hartz, R. S. B., Baltimore

Hayes, Howard V., Baltimore
 Hendrix, Ernest C., Baltimore
 Herzog, Louis J., Baltimore
 Hopkins, T. C., Edgewater
 Hillegeist, Carl E., Baltimore
 Hoff, Albert J., Baltimore
 Hoffman, Frederica, Baltimore
 Hoffman, Mrs. Ida, Baltimore
 Honemann, H. L., Baltimore
 Hoot, D. A., Baltimore
 Hopkins, R. Milton, Baltimore
 House, Harold N., Baltimore
 Hubka, Josephine E., Baltimore
 Hughes, Ethel M., Baltimore
 Hughes, Mildred, Baltimore
 Hulbert, Mrs. Victoria C., Baltimore
 Hutchinson, George R., Baltimore
 Ireland, Richard H., Baltimore
 Jacobs, Benedict W., Baltimore
 Jacobs, Lillian J., Baltimore
 Johnson, Victor H., Baltimore
 Joyce, Katherine J., Baltimore
 Jurgens, Howard, Baltimore
 Katz, Hilda V. L., Baltimore
 Kearney, James, Baltimore
 Kenny, James W., Baltimore
 Kleim, C. E., Ruxton
 Knipp, Charles R., Baltimore
 Knopfler, Adam O., Baltimore
 Knopfler, Richard H., Baltimore
 Kraft, M. Loretta, Baltimore
 Kraus, Elsa B., Baltimore
 Kriel, Christian C., Baltimore
 LaCrosse, Leopold L., Baltimore
 Langenfelder, Henry J., Baltimore
 Langrall, Herbert L., Baltimore
 Lauer, Joseph B., Baltimore
 Lawson, Joseph H., Baltimore
 Layman, Florence, Baltimore
 Lazinsky, Joseph W., Baltimore
 League, Norma E., Baltimore
 Leister, E. Morgan, Baltimore
 Leuschner, Anna, Baltimore
 Lewis, Charles W., Baltimore
 Lewis, H. A., Baltimore
 Lewis, Richard A., Towson
 Lockard, Ralph, Baltimore
 McAfee, Carey N., Baltimore
 McCallip, Carrington A., Baltimore
 McClintock, Cora A., Baltimore
 McCullough, Mary M., Baltimore
 MacPherson, Helen, Baltimore
 Maconachy, E. Marion, Baltimore
 Magers, H. B., Baltimore
 Martin, Bertha E., Hampstead
 Mahool, Katherine A., Baltimore
 Menkel, Edith, Baltimore

Merriam, Russell W., Baltimore
 Meyer, Ehlaudt A., Baltimore
 Miller, David, Baltimore
 Miller, T. Denton, Jr., Baltimore
 Minder, Helene, Baltimore
 Nittler, Frances, Baltimore
 Montgomery, Regina C., Baltimore
 Morgan, Chas. A. J., Baltimore
 Morris, Ernest F., Baltimore
 Muehlhause, William, Baltimore
 Mulford, Harry S., Baltimore
 Naylor, Lewis V., Baltimore
 Neumann, Rev. H., Fullerton
 Nicolls, Robert, Owings Mills
 Oliver, Marion, Baltimore
 O'Rourke, Andrew J., Roslyn
 Palees, Wolf, Baltimore
 Parr, Katharine B., Baltimore
 Peddicord, Kenneth L., Baltimore
 Penniman, Geo. D., Stevenson
 Phillips, H. C., Baltimore
 Pooler, Blanche F., Baltimore
 Pope, Henry F., Baltimore
 Powell, Gilbert S., Baltimore
 Pritzker, William, Baltimore
 Quarangesser, Edward J., Baltimore
 Randel, Alma L., Baltimore
 Rauck, William A., Baltimore
 Reaney, Howard A., Ruxton
 Reed, Dorsey M., Baltimore
 Rice, Emory C., Baltimore
 Richardson, Margaret, Baltimore
 Ritter, Elbert F., Baltimore
 Robinson, J. P., Baltimore
 Roehen, Louise, Reisterstown
 Rosch, Anna, Baltimore
 Rosenblum, Isador F., Baltimore
 Rosenstock, Ezra, Baltimore
 Ruane, Loretta, Baltimore
 Russ, John J., Baltimore
 Russell, Nina M., Baltimore
 Sacks, William L., Baltimore
 Salan, Sol C., Baltimore
 Sands, Walter, Baltimore
 Scalley, Jessie C., Baltimore
 Scarborough, Vernon, Baltimore
 Schall, August, Baltimore
 Schall, Paul, Jr., Baltimore
 Schmidt, Carl P., Baltimore
 Schmidt, Frank, Baltimore
 Schneider, Frederick L., Baltimore
 Schragar, William K., Halethorpe
 Schreiber, John A., Baltimore
 Schultz, Dorothy N., Mt. Washington

Schuppner, William G., Baltimore
 Segall, Helen, Baltimore
 Seliterman, Isidor, Baltimore
 Shackelford, Arnold E., Baltimore
 Shaw, Miriam W., Baltimore
 Sheely, Harry M., Baltimore
 Shipley, Gloria, Baltimore
 Sickel, J. F. Cooper, Baltimore
 Smith, Charles A., Baltimore
 Smith, James R., Baltimore
 Smrcina, James F., Jr., Baltimore
 Snyder, Mattie, Baltimore
 Spence, Lydia E., Baltimore
 Spielmann, Otto, Baltimore
 Stange, Evelyn L., Baltimore
 Stein, David, Baltimore
 Stoll, Joseph M., Baltimore
 Street, Leo J., Baltimore
 Stulman, Fannie E., Baltimore
 Swartz, Richard P., Baltimore
 Sweeney, Dennis J., Baltimore
 Sweeney, Madeline, Baltimore
 Tarshish, Allan, Baltimore
 Teipe, Emma M., Halethorpe
 Terlitzky, Bessie, Baltimore
 Thomas, Joseph H., Baltimore
 Thompson, William E., Jr., Baltimore
 Tilghman, William D., Jr., Elkridge
 Trott, Ida M., Baltimore
 Tucker, John H., Baltimore
 Tuecker, Gertrude E., Baltimore
 Wagner, Julian T., Baltimore
 Walters, A. P., Baltimore
 Wannen, C. L., Baltimore
 Wanner, Marie E., Baltimore
 Watts, B. Rutherford, Baltimore
 Weaver, Elizabeth S., Baltimore
 Weaver, J. Allen, Baltimore
 Weis, Mrs. Fred, Baltimore
 Wellmore, Grace L., Baltimore
 Wertheim, Sadie, Baltimore
 Wheeler, Pauline, Baltimore
 Wheeler, Pearl E., Baltimore
 White, Irving C., Baltimore
 Whitmore, B. L., Baltimore
 Wilson, Beulah, Baltimore
 Wimmer, John Ernest, Baltimore
 Wissel, William F., Baltimore
 Witham, James M., Baltimore
 Yates, R. Hood, Baltimore
 Zeiler, Van Iden, Baltimore
 Zeller, Ruth, Baltimore
 Zentz, Earl, Baltimore

SCHOOL OF DENTISTRY

SENIOR CLASS

Adair, William V., Grafton, W. Va.
Amenta, Lawrence J., North East, Pa.
Ashby, John L., Mt. Airy, N. C.
Betts, Allan R., Morris Plains, N. J.
Brenner, Morris, Pittsburgh, Pa.
Brickner, Lottie, Bronx, N. Y.
Brown, Louis L., Ellicott City
Childers, Ellsworth W., Salem, W. Va.
Cook, James R., Frostburg
Coward, Charles C., Cheraw, S. C.
Crowley, William H., Troy, N. Y.
Cummings, Edwin S., Newark, N. J.
Davenport, Joseph M., Thomas, W. Va.
Davidson, Lewis C., Lewisburg, W. Va.
Gibbins, Edward B., Newark, N. J.
Givens, Robert I., Sinking Creek, Va.
Goldstein, Joseph, Washington, D. C.
Goomrigian, Leon H., Summit, N. J.
Hoff, Joseph H., Wellsville, Pa.
Hogan, Jesse D., Mt. Airy, N. C.
Jones, James A., Altoona, Pa.
Karn, George C., Jefferson
Kayne, Louis E., Baltimore
Kiser, William R., Keyser, W. Va.

Landry, H. G., Montreal, Can.
McCarthy, Harry B., Swanton, Vt.
Medearis, William F., Winston-Salem, N.C.
Mortenson, Peter M., Perth Amboy, N. J.
Munoz, Cristino, Jr., Juana Diaz, P. R.
Nesbitt, Harry R., Baltimore
Nimocks, Henry S., Fayetteville, N. C.
Perry, Elmer A., Warwick, N. Y.
Prather, E., Burnt House, W. Va.
Pressly, William A., Jr., Rock Hill, S. C.
Richards, Vernon W., Wardtown, Va.
Richmond, Silman L., Hinton, W. Va.
Rider, Charles A., Benwood, W. Va.
Schmalenbach, Herbert, Baltimore
Schwartz, Max, Jersey City, N. J.
Shaak, Walter D., Kearny, N. J.
Sheppe, Alfred H., Frenchton, W. Va.
Silberman, Harry A., Washington, D. C.
Thaman, William C., Baltimore
Walsh, Walter T., Moriah Center, N. Y.
Wasserberg, Irving, New York City
Whitehead, Alvin P., Morehead City, N. C.
Yates, Frank F., Grafton, W. Va.
Young, George W., Rutherford Heights, Pa.

JUNIOR CLASS

Adkins, Lester O., Parsonsburg
Bauder, John F., Newark, N. J.
Bazinet, W. J., Jr., Webster, Mass.
Begg, John F., Waterbury, Conn.
Boatman, W. W., Orting, Wash.
Bradshaw, John P., Burkeville, Va.
Casey, John A., Wilmington, Del.
Chimachoff, Nathan T., Newark, N. J.
Christian, W. P., Pedro Miguel, Canal Zone
Corcoran, Donald M., New London, Conn.
DeVita, Anthony L., Livingston, N. J.
Fernandez, Julio M., Aguadilla, P. R.
Fitzgerald, George E., Chembusco, N. Y.
Gibbins, Clifford H., Newark, N. J.
Goble, R. C., Paterson, N. J.
Grempler, Karl F., Baltimore
Hayes, Francis I., Waterbury, Conn.
Hogle, W. Mason, So. Glens Falls, N. Y.
Hurst, Orville, Clayton, Wilsonburg, W. Va.
Jerdon, E. J., North Adams, Mass.
Kearfott, Joseph G., Shipman, Va.
Kelley, Harry H., Plattsburg, N. Y.

McCutcheon, Robert B., Newark, N. J.
Miller, Wilson L., Cape May, N. J.
Moran, Michael E., Manchester, N. H.
Nigaglioni, Julio R., Yauco, Porto Rico
Racicot, George J., Webster, Mass.
Rice, Ray E., Seven Stars, Pa.
Rutrough, Bruce W., Roanoke, Va.
Sherrard, Vernon F., Presque Isle, Me.
Short, Joseph R., Lexington, W. Va.
Sickles, William V., Troy, N. Y.
Smith, Max, Baltimore
Styers, Edward J., Baltimore
Swing, James P., Jr., Ridgely
Thacker, Paul S., Franklin, W. Va.
Thomas, Carl L., Danville, Va.
Thorn, Allan H., Newark, N. J.
Tressler, Roland A., Baltimore
Trettin, Clarence, Baltimore
Vazquez, J. A., Ponce, P. R.
Whitehead, John W., Morehead City, N. C.
Wilson, Harry Davis, Baltimore
Woodard, Charles F., Black Mountain, N.C.

SOPHOMORE CLASS

Abramson, Leonard, Bayonne, N. J.
Basehoar, Clyde E., Littlestown, Pa.
Baum, Theodore A., Baltimore
Beard, John H., York, Pa.

Benazzi, Bomeda B., Danville, Va.
Benick, Carroll R., Baltimore
Bishop, Charles B., Waynesboro, Pa.
Blaisdell, Virgil, Sullivan, Me.

Bridger, R. H., Lewiston, N. C.
Brigadier, Leonard R., Bayonne, N. J.
Brightfield, Lloyd O., Baltimore
Brown, Bruce D., Greenbank, W. Va.
Browning, Balthis A., Baltimore
Buchness, Joseph V., Baltimore
Burt, Joseph F., Williamstown, W. Va.
Cahill, Thos. J., Smithton, W. Va.
Campbell, Samuel L., Charlestown, W. Va.
Capo, Enrique, Ponce, P. R.
Chase, Herman, Newark, N. J.
Chewning, Carroll W., Orange, Va.
Cohen, Meyer H., Carbondale, Pa.
Cronauer, F. A., Wilkes-Barre, Pa.
Dixon, Charles M., Jr., Frederick
Doble, Howard R., Presque Isle, Me.
Dolan, Joseph K., Pawtucket, R. I.
Fisher, Jacob D., Hampton, Va.
Garrett, Charles R., Waynesboro, Pa.
Goldstein, Harry, Baltimore
Greenwald, Louis E., Passaic, N. J.
Hall, Howard V., Westfield, N. J.
Hart, William I., Jr., Johnson City, Tenn.
Higby, Clifford C., Newark, N. J.
Hinrichs, Ernest H., Baltimore
Hitchcock, L. N., Taneytown
Hoover, Samuel H., Sparrows Point
Ingram, William A., Cheraw, S. C.
Keister, Walter L., Upper Tract, W. Va.
Kerlejza, George J., New Britain, Conn.
LaRoe, John E., Plainfield, N. J.
LeFevre, Edward W., Newport News, Va.
Levine, Milton, Bayonne, N. J.
Lewis, Frank Lucas, Baltimore
Loehwing, George H., Paterson, N. J.

FRESHMAN CLASS

Akers, James Lee, Baltimore
Badger, W. L., Baltimore
Bailey, R. C., Keyser, W. Va.
Binns, E. V., Baltimore
Biosca, Henry, Camaguey, Cuba
Bell, B. R., Charlotte, N. C.
Brown, C. S., Lick Creek, W. Va.
Brown, W. D., Barnegat, N. J.
Bulnick, Louis, Brooklyn, N. Y.
Caine, Louis P., Newark, N. J.
Crespo, Demetrio, Cabo Rojo, Porto Rico
Crickenberger, H. Hugh, White Sulphur Springs, W. Va.
Davis, William R., East Orange, N. J.
Degling, Harry H., East Orange, N. J.
Deslandes, Leo E., Providence, R. I.
Driscoll, Joseph, Ansonia, Conn.
Dunphy, Albert F., Providence, R. I.
Ellor, Arthur B., Bloomfield, N. J.
Farber, Arthur, Newark, N. J.

Lusardi, J., Rockaway, N. J.
Lynch, Daniel F., Waterbury, Conn.
McCormick, Richard E., Springfield, Mass.
McCrystle, Frank C., Minersville, Pa.
McEvoy, George F., Waterbury, Conn.
Matney, William G., Looney, Va.
Mercader, Miguel A., Mayaguez, P. R.
Meyer, Oscar W., East Rutherford, N. J.
Ortel, Linwood, Baltimore
Phelps, Frederick W., Bridgeport, Conn.
Phillips, George J., Monk, Va.
Polk, Charles J., Hartford, Conn.
Powell, Albert C., Adamston, W. Va.
Rieman, Barnett, Bayonne, N. J.
Schaff, Fred L., Greencastle, Pa.
Scholtes, Charles P., Minersville, Pa.
Shea, Edward W., Holyoke, Mass.
Siegel, Arthur, Long Island, N. Y.
Smith, Henry H., Adamston, W. Va.
Stewart, William, Jr., Wilmington, Del.
Stoner, Edgar T., Hagerstown
Taylor, Kenneth, Frostburg
Teague, Henry N., Martinsville, Va.
Thomas, Cecil A., Newport News, Va.
Towill, Robert B., Wake, Va.
Ulanet, Louis, Newark, N. J.
Van Auken, Ross D., New Brunswick, N. J.
Viera, Providencia (Miss), Rio Piedras, Porto Rico
Webb, Charles S., Bowling Green, Va.
Wierciak, Paul A., Ludlow, Mass.
Wildemann, Elmer M., Keyser, W. Va.
Wilhelm, Paul, Whiteford
Williams, Edgar R., Inez, N. C.
Willis, George A., Bel Air

McGonigle, William I. L., Newark, N. J.
 McMullen, Charles A., Mingo Junction, O.
 Marx, Joseph, Passaic, N. J.
 Mehring, Wilbur B., Taneytown, Md.
 Monk, David, Potchefstroom, Transvaal,
 South Africa
 Nelson, Joseph T., Jr., Baltimore
 Newell, Ward M., Stephens City, Va.
 Oggesen, Walter L., New Haven, Conn.
 O'Hara, Thomas J., Connellsville, Pa.
 Phreaner, Richard M., Greencastle, Pa.
 Pinsky, Benjamin, Baltimore
 Plaster, Hubert S., Winston-Salem, N. C.
 Quillen, Joseph E., Rehoboth, Delaware
 Raciborski, A. J., Indian Orchard, Mass.
 Rauch, Albin W., Newark, N. J.
 Rice, Theron, Cameron, N. C.
 Richmond, C. W., Coatesville, Pa.
 Rohrabach, Walter E., Belington, W. Va.
 St. Marie, Gerald, Holyoke, Mass.
 Sammarcelli, Jules T., Douglas, Ariz.
 Seery, Paul R., Wilmington, Del.
 Shapiro, Louis, Newark, N. J.
 Sharpe, Nicholas, New Haven, Conn.

Shoaf, R. Reynolds, Lexington, N. C.
 Shutters, Abram A., Timberville, Va.
 Siegle, Irving M., Huntington, N. Y.
 Sifontes, Jose E., Arecibo, P. R.
 Smith, Wallace P., Cambridge
 Towers, J. Milton, Newark, N. J.
 Townes, George E., Martinsville, Va.
 Trail, W. E., Pipestem, W. Va.
 Trone, James LeRoy, Carlisle, Pa.
 Usilton, Noel E., Worton
 Veasey, E. E., Pocomoke
 Walker, Robert D., Harrisburg, Pa.
 Walsh, William P., Wilmington, Del.
 Walter, Henry M., Baltimore
 Ward, James F., Mt. Airy, N. C.
 Warshawsky, Sam'l H., Asbury Park, N. J.
 Watson, Hugh A., Lenoir, N. C.
 Watts, Allan Lee, Carlisle, Pa.
 Weeks, William P., Charlotte, N. C.
 Whitcomb, Robert W., New London, Conn.
 Willis, L. C., Worton
 Winchester, Phil W., Summerfield, N. C.
 Zelinski, Edward W., Baltimore

COLLEGE OF EDUCATION

SENIOR CLASS

Anderson, Mary P., Washington, D. C.
 Burns, Landon C., Burnsville, Va.
 Cissel, Paul C., Highland
 Crowther, Elizabeth G., Sparks
 Engle, Ruth B., Frostburg
 Frank, Paul S., College Park
 Graham, James F., Barclay
 Jones, Miriam E., Chestertown

Lighter, Richard C., Middletown
 McBride, Austin A., Middletown
 *Pullen, Jesse P., Martinsville, Va.
 Smith, Nellie O., Washington, D. C.
 Soper, Elsie M., Beltsville
 Vaiden, Victoria, Baltimore
 Watkins, Donald E., Mt. Airy

JUNIOR CLASS

Castella, Olive W., Riverdale
 Colbert, Alice, Washington, D. C.
 Dorsey, Ethel A., Beltsville
 Earnest, Lillian O., Mt. Rainier
 Foster, James J., Parkton
 Glenn, Wilbur J., Smithsburg
 Kline, Ralph G., Frederick
 Knox, Lucy, College Park

Lemon, Frances D., Baltimore
 Long, Lillian H., Cumberland
 Melown, Portia, Cumberland
 Morris, Mildred, Salisbury
 Mullin, Vera D., Mt. Savage
 Stewart, J. Raymond, Street
 *Tarbell, William E., Berwyn
 Walrath, Edgar, Annapolis
 Williams, Esther, Lanham

SOPHOMORE CLASS

*Bennett, Benjamin H., Falls Church, Va.
 Buckey, Nellie S., Mt. Rainier
 Coblentz, Roscoe Z., Middletown
 Dolly, Virgil O., Flintstone
 Duvall, Elizabeth S., Washington, D. C.
 Evans, Robert B., Bel Air

Gardner, George P., Middletown
 Grosdidier, Edith H., Hyattsville
 Hadaway, Ella, Rock Hall
 Harbaugh, Mary, Washington, D. C.
 Klein, Truman S., Union Bridge
 Magruder, John W., Gaithersburg

Mountain, Eunice, Davis, W. Va.
 Nicol, Victorine G., Washington, D. C.
 Orme, Elsie L., Barnesville
 Rigdon, Wilson O., Cardiff
 Robertson, Dorothy, Laurel
 Rutter, Grace, Denton

Simmonds, L. Dale, Riverdale
 Simpson, Vivian V., Washington, D. C.
 Simmonds, Helen F., Riverdale
 Willis, Rebecca C., Hyattsville
 Willis, Theodora, Hyattsville

FRESHMAN CLASS

Amos, Laura I., Forest Hill
 Anderson, Dorothy B., Washington, D. C.
 Baker, Katherine L., Edgemont
 Corkran, Daniel E., Rhodesdale
 Flanagan, Mary R., Brookland, D. C.
 Funke, Blanche L., Oriole
 Funke, Esther N., Oriole
 Gibbons, Harold H., Princess Anne
 Grosdidier, Grace H., Hyattsville

Kessler, Mary A., Hyattsville
 Morgan, Phyllis, Lonaconing
 Murray, Dorothy, Clinton
 Pancoast, Priscilla B., Woodstown, N. J.
 Remsberg, Charles H., Middletown
 Samuels, Mrs. L. Inman, La Jolla, Calif.
 Seibert, John C., Clear Spring
 Smith, Rose M., Washington, D. C.
 Swenk, Elizabeth R., Washington, D. C.

UNCLASSIFIED

Branner, Cecil G., Dover, Del.

Groves, John, Washington, D. C.

EXTENSION COURSES IN EDUCATION (Baltimore)

Baer, B. F., Baltimore
 Baker, I., Baltimore
 Bandel, Frank, Baltimore
 Bandholz, George, Baltimore
 Barkalow, Louise, Baltimore
 Barnes, Marie, Baltimore
 Barr, Donald, Baltimore
 Bayley, Joseph, Baltimore
 Blaha, F. J., Baltimore
 Blaustein, Mildred, Baltimore
 Blessing, Mabel, Baltimore
 Booth, Lawrence R., Baltimore
 Brice, Percy, Baltimore
 Brown, Louis E., Baltimore
 Bryarly, Marshall, Baltimore
 Carroll, L. Hope, Baltimore
 Cook, Lula, Baltimore
 Delcher, Catherine, Baltimore
 Diehm, Harry, Baltimore
 Douglas, Hazen, Baltimore
 Ebaugh, Effie, Baltimore
 Emmart, C. F., Baltimore
 Fargo, Jessie, Baltimore
 Fiedl, Edward F., Baltimore
 Fielder, Wilbur, Baltimore
 Forney, Lewis S., Baltimore
 Frush, Marguerite E., Baltimore
 Fuehs, Ruby A., Baltimore
 Forrest, Maud B., Baltimore
 Gardner, Dorothy, Baltimore
 Gaule, J. H., Baltimore
 Gillis, Mabel, Baltimore
 Goldsmith, Maud, Baltimore
 Goldsmith, Flora, Baltimore
 Griffith, Raigh S., Baltimore

Haefner, William F., Baltimore
 Harper, Florence, Baltimore
 Haughey, Edith, Baltimore
 Healey, William G., Baltimore
 Hedrick, Melvin, Baltimore
 Hershey, Edith, Baltimore
 Hicks, Rose E., Baltimore
 Hipsley, Stanley, Baltimore
 Homburg, Ernest F., Baltimore
 Homburg, William F., Baltimore
 Honrigan, Anna, Baltimore
 Hopkins, Helen, Baltimore
 Horlebeim, Edwin, Baltimore
 Hyatt, Emma, Baltimore
 Hyatt, Neva, Baltimore
 Hyland, Marie, Baltimore
 Jackson, Mary, Baltimore
 Johns, George, Baltimore
 Kirchner, John, Baltimore
 Krager, Josephine, Baltimore
 Letzer, J. H., Baltimore
 Lochary, Caroline, Baltimore
 Magers, Ida R., Baltimore
 McGarvey, Mary, Baltimore
 McLellan, Maude, Baltimore
 Morgan, Charles A. J., Baltimore
 Morgan, Leah A., Baltimore
 Moritz, C., Baltimore
 Naylor, Alice, Baltimore
 Norris, Grace B., Baltimore
 O'Brennan, W. J., Baltimore
 Oswald, Charles, Baltimore
 Packard, C., Baltimore
 Fascoe, Ethel, Baltimore

Patterson, Ella, Baltimore
 Peterson, H. D., Baltimore
 Rest, Anna, Baltimore
 Reynolds, Ada, Baltimore
 Richardson, S. M., Baltimore
 Ripenhring, Edward, Baltimore
 Roberts, Daisy, Baltimore
 Rodenmayer, Nettie, Baltimore
 Ross, Elizabeth, Baltimore
 Russo, Vincent, Baltimore
 Sappington, Nellie, Baltimore
 Scheib, Mary, Baltimore
 Schrage, William K., Baltimore
 Schreiber, John A., Baltimore
 Shackelford, Arnold, Baltimore
 Smith, James R., Baltimore
 Smith, Robert A., Baltimore
 Spawn, J., Baltimore

Sweeney, Dennis J., Baltimore
 Thomas, Emma, Baltimore
 Tilghman, Helen, Baltimore
 Townley, R. Wolfe, Baltimore
 Townshend, Lillian R., Baltimore
 Towson, Ruth, Baltimore
 Waidner, Emma, Baltimore
 Walters, A. P., Baltimore
 Wardsworth, Julia, Baltimore
 Watkins, Miriam, Baltimore
 Weaver, Ruth P., Baltimore
 Weller, Nannie, Baltimore
 Wicks, O. Lula, Baltimore
 Wilson, Alice, Baltimore
 Wilson, Hugh, Baltimore
 Winkleman, Helen, Baltimore
 Zentz, Earl, Baltimore

EXTENSION COURSES IN EDUCATION (Hyattsville)

Buck, Lura, Landover
 Clayton, Louella, Mt. Rainier
 Curbow, Leone, Hyattsville
 Day, Frank, Hyattsville
 Espey, Agnes, Hyattsville
 Fleming, Agnes, Bladensburg
 Hand, Mary, Bladensburg
 Hotson, Edith, Mt. Rainier
 Jump, Margaret, College Park

Payne, Nellie, Hyattsville
 Schotthofer, Frances, Hyattsville
 Smith, Kathleen, Riverdale
 Sterling, Margaret, Hyattsville
 Temple, Martha, Riverdale
 Whitt, Marye, Riverdale
 Youngblood, Ruth, Hyattsville
 Zeller, Grace, Riverdale

COLLEGE OF ENGINEERING

SENIOR CLASS

Albrittain, Mason C., La Plata
 Bailey, Caleb T., Bladensburg
 Baldwin, Morris J., Woodridge, D. C.
 Belt, William B., Hyattsville
 Bennett, Frank A., Hagerstown
 Boteler, Howard M., Laurel
 Cook, Charles S., Frederick
 Donaldson, DeWitt C., Laurel
 Elliott, Joseph W., Hebron
 Harlow, James H., Havre de Grace
 Himmelheber, Joseph B., Baltimore
 Knapp, Peter T., Overlea

Melvin, Willis G., Havre de Grace
 Montgomery, Wilbur B., Washington, D.C.
 Owings, Elliott P., North Beach
 *Patton, Gordon S., Jackson, Miss.
 Richard, William J., Goldsboro
 Schaefer, John P., Riverdale
 Simmons, Lansing G., Takoma Park
 Walden, Frederick P., Raspeburg
 Wallis, Albert G., Frederick
 Wick, George A., Washington, D. C.
 Wisner, J. Ward, Jr., Baltimore

JUNIOR CLASS

Bartlett, Wirt D., Centerville
 Bittner, John H., Branchville
 Braungard, Paul J., Hagerstown
 Brothers, Maurice F., Washington, D. C.
 Chestnut, Frank T., Hyattsville
 Fitzgerald, Gilbert B., Princess Anne
 Foard, James H., Aberdeen
 Glass, Gerald L., Hyattsville
 Hill, William B., Hyattsville
 Howard, M. Hamilton, Brookeville
 Johnson, George W., Chesapeake City

Latham, Ector B., Washington, D. C.
 Lillie, Francis T., Takoma Park
 McMurtrey, Clifton C., Washington, D. C.
 Miller, Harold, Frederick
 Orr, Stanley C., Hyattsville
 Powell, Robert W., Princess Anne
 Reed, Raymond B., College Park
 Rizer, Richard T., Mt. Savage
 Santos, Bernardino, Rio Piedras, P. R.
 Schumann, Andrew E., Princess Anne

Seibert, Joseph H., Clear Spring
 Seney, Joshua M., Chestertown
 Shofnos, William, Washington, D. C.
 Steele, Eugene P., Hagerstown

Toadvine, Harry L., White Haven
 Van Sant, Bayard R., Greensboro
 Wenger, Charles W., Washington, D. C.
 Young, Walter H., Washington, D. C.

SOPHOMORE CLASS

Aldridge, David D., Frederick
 Aldridge, Howard R., Mt. Savage
 *Allison, Carl O., Washington, D. C.
 Baum, Edwin C., Washington, D. C.
 Blades, Samuel L., Sudlersville
 Bowers, Walter L., Hagerstown
 Bowie, John, Jr., Annapolis Junction
 Bowser, Merle L., Kittanning, Pa.
 Burnside, Douglas D., Washington, D. C.
 Castella, Charles C., Riverdale
 *Clagett, John H., Jr., Roslyn
 Collins, Stanton J., Sparrows Point
 Conway, James P., Cumberland
 *Davis, Ernest G., Hyattsville
 Dent, George H., Churchton
 Fisher, A. Boyd, Point of Rocks
 Fisk, Willis H., Kensington
 Ford, Watson I., Baltimore
 Friese, Nevin W., Hagerstown
 Glover, Charles P., Mt. Airy
 Graham, Ralph M., Washington, D. C.
 Harper, Donald N., Royal Oak
 Hook, Addison E., Baltimore
 *Hoppe, John H., Riverdale
 Huyett, Earl D., Hagerstown
 King, Barnwell R., Branchville
 Kline, William M., Washington, D. C.
 Knox, Howard L., College Park

Knox, Lloyd T., College Park
 Lewis, Gomer, Washington, D. C.
 Lewis, William H., Elkton
 Litchfield, Charles W., Washington, D. C.
 McCune, William T., Elkton
 McFadden, Charles P., Elkton
 Magalis, Benjamin W., Brunswick
 Matthews, Kenneth F., Washington, D. C.
 Meeds, Nelson T., Silver Spring
 Melchior, Louis F., Washington, D. C.
 Melton, Edward R., Washington, D. C.
 Mills, J. E. Wayne, Washington Grove
 Morris, Paul, St. Michaels
 Nihiser, Edwin E., Hagerstown
 *Noe, Ira J., Washington, D. C.
 Orr, Robert G., Lonaconing
 Prangle, Arthur G., Washington, D. C.
 Price, William D., Washington, D. C.
 Richardson, James O., Washington, D. C.
 Rogers, Frederick H., Washington, D. C.
 Sanders, Warrington P., Washington, D.C.
 Staley, Daniel R., Knoxville
 Troxell, William F., Gaithersburg
 Vandegrift, Edgar D., Cumberland
 *Vandoren, Theodore J., Hyattsville
 Warren, John S., Pomonkey
 Watkins, Benjamin III, Davidsonville
 Woodruff, Charles M., Sparrows Point

FRESHMAN CLASS

Allen, Edward R., Towson
 Allen, James C., Washington, D. C.
 Armstrong, Robert B., Washington, D. C.
 Atkinson, Walter S., Pocomoke
 Aubinoe, Alvin L., Washington, D. C.
 Barber, Charles T., Hagerstown
 Bishop, William E., Washington, D. C.
 Bonnett, Arthur E., Washington, D. C.
 Brayton, Jean H., Washington, D. C.
 Buckingham, Stephen A., Chevy Chase
 Butler, Charles W., Washington, D. C.
 Caruthers, Robert S., Riverdale
 Coakley, Forrest, Havre de Grace
 Coblenz, Edward P., Catonsville
 Conwell, Stephen F., Tauntum
 Cooling, William C., Chesapeake City
 Crawford, Thomas B., Havre de Grace
 Davis, Douglas M., Hyattsville
 DeAtley, Ellsworth F., Washington, D. C.
 Fox, Daniel M., Baltimore

Funk, Wilson S., Denton
 Gannon, Clarence B., Baltimore
 Gazze, Sylvius, Greensburg, Pa.
 Green, Winship I., Kensington
 Halley, Edward B., Washington, D. C.
 Hough, George W., Washington, D. C.
 Jeffers, Ralph A., Elkton
 Johnson, Theodore W., Washington, D. C.
 Kaiser, John, Washington, D. C.
 Kellerman, William F., Washington, D. C.
 Kurth, William C., East New Market
 Lang, John C., Pocomoke City
 Lebowitz, Samuel, Mt. Rainier
 Lehman, Laurence L., Rockville
 Loughborough, D. S., Washington, D. C.
 Matson, Frederic C., Washington, D. C.
 McCabe, Paul W., Spring Gap
 McCauley, George M., Washington, D. C.
 McKeige, Edward E., Mt. Rainier
 Meehan, Clarence M., Waynesboro, Pa.

Melchior, George E., Morriottsville
 Melvin, Dudley A., Havre de Grace
 Metzgeroth, Eric C., Washington, D. C.
 Mitchell, James R., Wetipquin
 Mitchell, John H., La Plata
 Morris, John D., Sykesville
 Moseman, Carvel G., Washington, D. C.
 Parker, Alvin M., Washington, D. C.
 Phillips, Lawrence A., Washington, D. C.
 Pinney, Millard A., Washington, D. C.
 Quinn, George H., Crisfield
 Revelle, John E., Washington, D. C.
 Rothenhoefer, Frank W., Frederick
 Runkles, Oliver W., Mt. Airy
 Seth, Joseph B., St. Michaels

Stitt, Edward W., Washington, D. C.
 Strite, Russell B., Hagerstown
 Thall, Charles J., Dushore, Pa.
 Thompson, Edward S., Roslyn, Va.
 Tingley, Egbert F., Hyattsville
 Trimble, William R., Washington, D. C.
 Waters, John W., Washington, D. C.
 White, Martin H., Washington, D. C.
 Wilcox, Chester M., Anacostia, D. C.
 Williams, Robert S., Jr., Washington, D. C.
 Wilson, Charles G., Catonsville
 Winnemore, L. P., Washington, D. C.
 Wolff, Lyman H., Washington, D. C.
 Yilek, Joseph J., Washington, D. C.

UNCLASSIFIED

Coronel, Ulpiano, New York
 DeCaindry, William A., Baltimore
 Sampson, Hugh, Branchville
 Stoll, Charles C., Brooklyn

GRADUATE SCHOOL

Anderson, O. W., Timmonssville, S. C.
 Anderson, Pearl, Amherst, N. H.
 Boswell, Victor R., Columbia, Mo.
 Browne, Edward L., Chevy Chase
 Canter, Francis D., Aquasco
 Conrad, Carl M., Burlington, Kan.
 Darkis, F. R., Frederick
 Day, Frank D., Hyattsville
 Eaton, Orson N., Beltsville
 Elder, James W., Cumberland
 Eppley, Geary, College Park
 Ezekiel, Walter N., Berwyn
 Fields, J. Newton, Lamar, S. C.
 Flenner, A. L., Riverdale
 Flynn, John E., Friendsville, Pa.
 Grafflin, Mildred W., Baltimore
 Holmes, Myron G., Northwood, N. H.
 Howe, Charles H., Chapman, Kan.
 Huffington, Jesse M., Eden
 Jenkins, Harvey F., Concord, N. H.
 Juchhoff, Frederick, Washington, D. C.
 Kimbrough, William D., Summerdale, Ala.
 Lagasse, Felix S., Lochmere, N. H.
 Langford, George S., Blythewood, S. C.
 Lichtenwalner, Daniel C., Riverdale
 Lindquist, Harry G., Holden, Mass.
 Mackert, C. L., College Park
 Malcolm, W. G., Barton
 McCarron, Marcus A., Worcester, Mass.
 Moran, John A., Frederick
 Olive, James G., Apex, N. C.
 Potts, S. F., Crawford, Miss.
 Preinkert, Alma H., Washington, D. C.
 Reinmuth, O. H., Frederick
 Sanders, Paul D., West, Miss.
 Scheuch, John D., Washington, D. C.
 Schrader, Albert L., So. Kaukauna, Wis.
 Schramm, G. N., Cumberland
 Semler, Harry E., Hagerstown
 Sher, Ben, St. Joseph, Mo.
 Shillinger, J. E., Washington, D. C.
 Smith, A. M., College Park
 Smith, John W., Norfolk, Va.
 Stamp, Adele H., College Park
 Sturgis, William C., Snow Hill
 Twilley, Otis S., Hurlock
 Vierheller, Albert F., Parkersburg, W. Va.
 Walker, William P., Mt. Airy
 Waller, Harry B., Verona, Ky.
 Whitehouse, William E., Amherst, N. H.
 Wiley, R. C., College Park
 Winant, H. B., Brentwood

COLLEGE OF HOME ECONOMICS

SENIOR CLASS

Killiam, Audrey, Delmar
 McCall, Elizabeth G., College Park

JUNIOR CLASS

*DeVol, Helen M., Crawfordsville, Ind.
 Johnstone, Lott, Washington, D. C.
 Morris, Sarah E., Hyattsville
 Murphy, Anna M., Staunton, Va.
 *Stewart, Anne S., Rustburg, Va.

SOPHOMORE CLASS

Wolfe, M. Frances, Forest Glen

FRESHMAN CLASS

Corsette, Helen J., Washington, D. C.
 Cowles, Lois A., Washington, D. C.
 Dent, Alice L., Townshend
 Ferrell, Marian F., Washington, D. C.
 Johnson, Julia C., Washington, D. C.
 *Langenfeldt, Marie E., Hyattsville
 Wolfe, Margaret B., Forest Glen

UNCLASSIFIED

Clay, Margaret, Washington, D. C.

SCHOOL OF LAW

SENIOR CLASS

Albert, Milton A., Baltimore
 Arnold, Frank, Baltimore
 Allen, Howell W., Jr., Baltimore
 Azrael, Louis, Baltimore
 Bach, Joseph A., Ellicott City
 Barrett, Franklin P., Baltimore
 Barrett, William L. K., Jr., Baltimore
 Barron, Irving, Baltimore
 Barron, Robert, Baltimore
 Batty, Howard A., Baltimore
 Baugh, Ernest V., Jr., Baltimore
 Baum, Albert S., Jr., Baltimore
 Bellows, Donald P., Glyndon
 Berenholtz, Sol. C., Baltimore
 Berman, Benjamin, Baltimore
 Berman, S. Frances, Baltimore
 Blackburn, Earle W., Baltimore
 Blackiston, Richard P., Palmers
 Blaustein, J. Selman, Baltimore
 Blum, Albert H., Baltimore
 Bollinger, James W., Reisterstown
 Bordley, Clayton W., Baltimore
 Bowling, Joseph T., Hughesville
 Bregel, Howard C., Baltimore
 Caplan, David H., Baltimore
 Caplan, Meyer, Baltimore
 Caples, Walter, Baltimore
 Carmel, Percy, Baltimore
 Christensen, Einon, Baltimore
 Cockey, James Sudler, Jr., Stevensville
 Cohen, Herman, Baltimore
 Cohen, Jacob, Baltimore
 Cole, B. Olive, Baltimore
 Cornthwaite, Elmer B., Baltimore
 Cotton, Myron S., Baltimore
 Cover, James P., Easton, Md.
 Crowther, George R., Jr., Smithsburg
 Crowther, Lester H., Baltimore
 Backman, John T., Baltimore
 Darley, John Wilmerton, Baltimore
 Dimarco, Anna E., Baltimore
 Druery, Oliver R., Baltimore
 Due, Paul F., Baltimore
 Feikin, Bernard, Baltimore
 Fine, Harry, Baltimore
 Foard, Francis M., Baltimore
 France, Robert, Baltimore
 Freed, Otto R., Baltimore
 Gaskins, Damon S., Baltimore
 Gay, James E., Jr., Baltimore
 Gillum, Wilbur A., Baltimore
 Glick, Henry, Baltimore
 Goertz, Harry E., Baltimore
 Goldstein, Raphael S., Baltimore
 Gorsuch, Walter C., Oxford, Md.
 Greenberg, Mordecai D., Baltimore
 Griesacker, Joseph B., Baltimore
 Gross, Christian W., Baltimore
 Hahn, Theodore J., Baltimore
 Hall, Reginald Irving, Baltimore
 Hammerman, Israel, Baltimore
 Harrington, Thomas M., Baltimore
 Hedeman, John R. T., Baltimore
 Hirt, Frank J., Baltimore
 Hisky, John G., Catonsville
 Hochman, Joel J., Baltimore
 Hofferbert, George, Baltimore
 Horney, William R., Centreville
 Horsey, Joshua R., Baltimore
 Hudson, J. Frank, Towson
 Hyman, Morris David, Baltimore
 Isaacson, Julius, Baltimore
 Jett, Robert Samuel, Baltimore
 Jewell, Clay, Baltimore
 Johnson, Russell H., Baltimore
 Kairys, Harry, Baltimore
 Kelley, James P., Towson
 Kelley, Stanley, Eldridge, Ala.
 Kerpelman, Morris E., Baltimore
 Kidd, James K., Baltimore
 Kirchner, George W., Baltimore

Krymski, Joseph M., Baltimore
 Kurland, Fannie, Baltimore
 Lazarus, Henry, Baltimore
 Leavitt, Maurice M., Baltimore
 Leonhardt, W. C., Baltimore
 Lesinsky, Samuel, Baltimore
 Lickle, William F., Towson
 Lindenberg, Adelaide H., Baltimore
 Littleton, Oliver, Baltimore
 Lougran, Jerome Aloysius, Ellicott City
 Lutzky, Ida Claire, Baltimore
 Lynch, Charles A., Baltimore
 Mandelberg, Abraham H., Baltimore
 Marshall, Roland S., Baltimore
 Matthews, Charles N., Baltimore
 Maurer, Julius G., Relay
 Mazor, Meyer, Baltimore
 McAllister, James A., Cambridge
 McCahan, Elmer, Jr., Baltimore
 McFaul, George, Baltimore
 McInnis, Eugene, Baltimore
 Memkin, William L., Baltimore
 Minder, John Henry, Baltimore
 Mooney, Lawrence R., Baltimore
 Moore, George L., Baltimore
 Morgan, Tilghman V., Baltimore
 Mullan, W. G. R., Baltimore
 Needle, Sidney, Baltimore
 Neel, John M., Baltimore
 Nickerson, Palmer R., Baltimore
 Obrecht, Holliday H., Baltimore
 O'Rourke, Andrew G., Roslyn
 Palees, Mitchell, Baltimore
 Palmisano, Augustine, Jr., Baltimore
 Parke, G. Arch, Baltimore
 Patti, Joseph J., Jr., Baltimore
 Perry, John W., Salisbury
 Phillips, Seymour, Baltimore
 Pierson, Leon H. A., Baltimore
 Porter, William Edgar, Baltimore
 Pressman, Maurice J., Baltimore
 Prestman, Marie W., Baltimore
 Pugh, Walter J., Baltimore

Pumpian, Herman, Baltimore
 Rabuck, LeRoy T., Coraopolis, Pa.
 Reese, John G., Baltimore
 Riddle, John F., Baltimore
 Rody, Benjamin F., Baltimore
 Roil, John R., Baltimore
 Rosenberg, Sarah Rita, Baltimore
 Rossiter, Goldsborough G., Baltimore
 Salerno, Peter C., Bristol, Conn.
 Scharf, Frederick, Baltimore
 Schmelz, Fred, Baltimore
 Schonfield, Simon, Baltimore
 Sellers, John, Baltimore
 Shaffer, Samuel S., Baltimore
 Shapiro, Solomon, Baltimore
 Shea, James D., Baltimore
 Sherry, Mrs. Helen I., Baltimore
 Siegrist, Louis, Jr., Baltimore
 Siems, Valentine Bernard, Baltimore
 Siff, H. E., Baltimore
 Sinn, Walter E., Frederick
 Sinsky, William, Baltimore
 Skinner, William H., Baltimore
 Sline, Percy, Baltimore
 Sloane, David W., Cumberland
 Smith, Milton R., Glen Arm
 Sokol, Max, Baltimore
 Spedden, Alex W., Jr., Baltimore
 Stein, Charles F., Jr., Baltimore
 Strauss, Raymond F., Baltimore
 Stritehoff, Nelson H., Jr., Baltimore
 Talbott, William S., Baltimore
 Tome, Richard E., Baltimore
 Truitt, Jeremiah F., Salisbury
 Walker, Alfred F., Baltimore
 Walker, Uthman, Baltimore
 Weiner, Paul N., Baltimore
 Weintraub, Ben., Baltimore
 Weiskittel, Francis A., Baltimore
 Whiteley, George C., Centreville
 Williams, Charles C., Baltimore
 Wilson, Frankie D., Linthicum Heights
 Zimmerman, Ben., Baltimore

INTERMEDIATE CLASS

Abell, Joseph Walter, Baltimore
 Adams, Richard B., Baltimore
 Ades, Bernard, Baltimore
 Adler, Irwin H., Baltimore
 Alexander, John D., Baltimore
 Alexander, John Gunnels, Atlanta, Ga.
 Barnett, Ralph O., Sykesville
 Bartholomay, William P., Jr., Baltimore
 Bearman, Sidney, Baltimore
 Berlin, Herman, Baltimore
 Biggs, Richard D., Baltimore

Biser, Leon Windsor, Ijamsville
 Blickenstaff, Lloyd S., Boonsboro
 Borden, Aaron, Baltimore
 Bousman, Floyd W., Baltimore
 Bramble, Forrest F., Baltimore
 Bready, Henrietta Y., Baltimore
 Brenner, David M., Baltimore
 Brindle, Robert H., Hagerstown
 Brown, Howard, Bladensburg
 Browne, Alfred, Jr., New York City
 Brownstein, Abraham A., Baltimore

Caplan, Frank L., Baltimore
 Carney, Robert E., Baltimore
 Carroll, Paul E., Baltimore
 Chin, St. Lake, Baltimore
 Clayton, John M., Cambridge
 Cockey, Bennett F. B., Cockeysville
 Codd, William A., Baltimore
 Cohen, Leon, Baltimore
 Cole, Thomas W., Baltimore
 Coleburn, George R., Accomac, Va.
 Connor, I. Campbell, Baltimore
 Coughlan, Robert E., Jr., Mt. Washington
 Czajkowski, Walter M., Baltimore
 Daisey, Carey J., Chincoteague Island, Va.
 Dallam, Richard, Jr., Bel Air
 Dankmeyer, Theodore R., Baltimore
 Darrough, William J., Baltimore
 Day, Carl L., Baltimore
 Deady, Frank H., Baltimore
 Debel, Niels H., Baltimore
 DeKowzan, Paul A., Baltimore
 DeLashmutt, Emilie F., Baltimore
 Dellone, Catherine R., Baltimore
 DeMarco, Pasquale Charles, Baltimore
 Dorsey, Philip H., Annapolis
 Doyle, James J., Baltimore
 Edelson, Milton B., Baltimore
 Epstein, Samuel C., Baltimore
 Famous, Franklin E., Street
 Farber, George, Baltimore
 Feinberg, Isidore B., Baltimore
 Feldman, Isadore E., Baltimore
 Feldman, Sydney, Baltimore
 Fenwick, James S., Baltimore
 Figinski, Marion A., Baltimore
 Fine, Melvin L., Baltimore
 Fine, Phylburt E., Baltimore
 Fitzpatrick, John J., Baltimore
 Forrest, Otto N., Baltimore
 Foster, Reuben, Baltimore
 Frankel, Albert H., Baltimore
 Glick, Maurice, Baltimore
 Goldberg, Charles F., Baltimore
 Goldbloom, Milton S., Baltimore
 Goldstein, Milton E., Baltimore
 Greenberg, Alexander, Baltimore
 Greene, Melvin J., Baltimore
 Griffin, Felix A., Baltimore
 Gutberlet, Joseph C., Baltimore
 Hammerman, Herman, Baltimore
 Hampson, George Mobra, Baltimore
 Hanna, F. Carlos, Cambridge
 Harrington, Thomas B., Baltimore
 Hoff, Albert J., Baltimore
 Hoffman, George L., Baltimore
 Honeywell, James O., Baltimore

Hopkins, Hastings B., Baltimore
 Hopkins, Ira C., Halls
 Hudson, Howard E., Gumboro, Del.
 Hunter, Edgar J., York, Pa.
 Huss, Albert B., Baltimore
 Isaacson, Simon L., Baltimore
 Jarboe, John M., Pearson
 Johnson, Nathan, Baltimore
 Kalb, Edgar Seymour, Baltimore
 Kelley, Estel C., Westernport
 Kernan, Anthony E., Baltimore
 Kirby, Joseph S., Mt. Washington
 Lamberd, Luther S., Baltimore
 Langsdale, Hewett, Easton
 Lee, James J., Baltimore
 Levin, Celia I., Baltimore
 Levitas, Benjamin I., Baltimore
 Lohmuller, George B., Baltimore
 Macht, Louis E., Baltimore
 Massey, William F., Sudlersville
 Masson, Stevenson, Baltimore
 McKinsey, Katherine, Baltimore
 Mechanic, William G., Baltimore
 Meid, Albert, Jr., Baltimore
 Meiser, Fred W., Baltimore
 Mercer, B. H., Baltimore
 Merrill, Irving W., Baltimore
 Meyerhoff, Louis, Baltimore
 Mihm, William A., Mt. Washington
 Moshkevich, Gersh I., Baltimore
 Moylan, Charles E., Ijamsville
 Mullikin, James C., Easton
 Muth, Gerard J., Catonsville
 Newell, Beach, Baltimore
 Newman, Irving, Baltimore
 Norton, George T., Baltimore
 Novak, Charles J., Baltimore
 Owinski, Joseph J., Baltimore
 Oxley, John E., Poolesville
 Parr, Frank T., Baltimore
 Perlman, A., Baltimore
 Poole, John H., New Market
 Post, Philip T., Baltimore
 Proper, Jerome, Baltimore
 Rhodes, Walter E., Baltimore
 Rhynhart, William W., Baltimore
 Robins, Stanley G., Crisfield
 Robinson, Morton M., Baltimore
 Roesch, Emil A., Baltimore
 Rosner, Jeannette, Baltimore
 Roth, Edward P., Baltimore
 Rowe, Roscoe C., Annapolis
 Rubenstein, Abraham J., Baltimore
 Saiontz, Carl B., Baltimore
 Samuelson, Herman, Baltimore
 Scaggs, George W., Baltimore
 Scaggs, Howard I., Baltimore

Schapiro, Ruth, Baltimore
 Schiaffino, Frank P., Baltimore
 Schlegel, Edwin M., Reading, Pa.
 Schlossberg, Abe., Baltimore
 Schulbe, George Philip, Jr., Catonsville
 Sear, Abram, Hampton, Va.
 Seliterman, Ben B., Baltimore
 Semans, William R., Baltimore
 Seymour, Charles C., Cumberland
 Shea, Jeremiah D., Colchester, Conn.
 Shockett, Harry M., Baltimore
 Shockley, Elisha V., St. Michaels
 Siegmund, Carl R., Baltimore
 Silverman, Samuel L., Portsmouth, Va.
 Simpson, Albert L., Portsmouth, Va.
 Smith, Albert VanDeaver, Baltimore
 Smith, Edward M., Baltimore

Smith, Michael P., Baltimore
 Snyder, Carolyn P., Glyndon
 Stevens, Edward W., Sudlersville
 Stocksdales, Howard B., Baltimore
 Swartz, Jerome, Baltimore
 Tarshish, Allan, Baltimore
 Tippet, William Thomas, Jr., Baltimore
 Truitt, Hughey B., Baltimore
 Vanger, Henry R., Baltimore
 Watson, John G., Centreville
 Webster, Edwin H., Bel Air
 Wellmore, Grace L., Baltimore
 Wellner, Gabriel D., Baltimore
 Williams, Matilda D., Baltimore
 Woelfel, George B., Annapolis
 Yaffe, Harry, Baltimore
 Zetzer, Rose S., Baltimore

JUNIOR CLASS

Aaron, Howard L., Baltimore
 Abramowitz, Max, Baltimore
 Abramson, Oscar, Baltimore
 Adkins, John E., Jr., Salisbury
 Aiken, Gerald R., Catonsville
 Arnold, Charles G., Brunswick
 Bacon, John, Baltimore
 Baer, Eli, Baltimore
 Baker, Orison W., Baltimore
 Barron, Sylvan, Baltimore
 Bartholow, Joseph C., Baltimore
 Baumann, John, Baltimore
 Bennett, Aubrey K., Federalsburg
 Bennett, John C., Baltimore
 Benson, James L., Baltimore
 Bisson, Joseph F., Baltimore
 Blankford, Roger J., Baltimore
 Bolard, Rudolph F., Jr., Baltimore
 Bounds, Carroll E., Allen
 Bounds, Wade G., Allen
 Bowen, John B., Baltimore
 Bozeman, Mrs. Anna K., Baltimore
 Brawner, Henry P., Baltimore
 Brennan, Peter J., Baltimore
 Bressler, Ida, Baltimore
 Bronner, Charles J., Detroit, Mich.
 Brown, Forrest N., Frederick
 Brown, Richard P., Baltimore
 Brownstein, William N., Baltimore
 Buchoff, Joseph, Baltimore
 Budwitz, Emil A., Baltimore
 Burch, James C., Baltimore
 Cairns, Huntington, Baltimore
 Calloway, Newell M., Sharptown
 Caplan, Howard, Clarksburg, W. Va.
 Carter, Joseph L., Eckhart Mines

Chambers, Benjamin, Baltimore
 Coburn, Benjamin H., Rock Hall
 Coe, Marion W., Reisterstown
 Cohen, Elias, Baltimore
 Cohen, Samuel, Baltimore
 Cohen, Sara, Baltimore
 Collins, Oliver D., Jr., Snow Hill
 Collins, Stephen R., Chestertown
 Coniff, John J., Baltimore
 Cooper, Margaret B., Baltimore
 Coyle, Wilbur F., Jr., Baltimore
 Crockett, C. Clyde, Baltimore
 Culotta, Joseph J., Baltimore
 Diamond, Albert E., Baltimore
 Dickel, Hans G., Frankfurt, Germany
 DiCenzo, George G., New Haven, Conn.
 Diehm, Victor C., Sparrows Point
 Diggs, Austin C., Baltimore
 Disney, Kenith D., Baltimore
 Donaway, Harry S., Baltimore
 Drummond, William H., Baltimore
 Dunton, William R., 3rd, Baltimore
 Edelman, Jacob J., Baltimore
 Ehudin, Marcy M., Baltimore
 Faithful, Boyd L., Baltimore
 Farbman, David J., Baltimore
 Fedder, Morris, Baltimore
 Feldman, Charles M., Baltimore
 Feldstein, Samuel H., Baltimore
 Fink, Herbert, Baltimore
 Flaccomio, Joseph V., Baltimore
 Freilachoff, Louis J., Baltimore
 Fried, Louis C., Baltimore
 Friedenber, Aaron, Baltimore
 Gaugh, Ralph A., Lewistown
 Gerber, Sherman J., Baltimore

Getz, Meyer H., Bel Air
 Gilbert, Rodman I., Baltimore
 Ginsberg, Samuel, Baltimore
 Glatt, Bernard, Baltimore
 Gomborov, Samuel H., Baltimore
 Goodman, Max, Baltimore
 Greenstein, Edward, Baltimore
 Greenwell, Charles B., Jr., Leonardtown
 Grillo, Vincent R., Philadelphia, Pa.
 Grzelecki, Kajetan W., Baltimore
 Hagner, Thomas J., Baltimore
 Hamm, William J., Baltimore
 Hammond, Francis H., Baltimore
 Harris, Alexander C., Baltimore
 Harris, Gertrude, Baltimore
 Hart, Mrs. Isabella, Baltimore
 Harwood, James K., Catonsville
 Helfrich, George Edmund, Baltimore
 Hendelberg, Philip, Baltimore
 Henneberger, J. Edmund, Mt. Washington
 Herman, Harry, Norfolk, Va.
 Hill, Stirling S., Baltimore
 Hillman, Sidney, Baltimore
 Hoff, Charles W., Baltimore
 Hoofnagle, C. C., Fairfield, Pa.
 Horn, Henry J., Baltimore
 Humphreys, Harry N., Baltimore
 Hurwitz, James J., Baltimore
 Jacobs, Benedict W., Baltimore
 Jacobs, Sidney M., Baltimore
 Jacobsen, Eric, Baltimore
 Jenkins, Merton E., Margaretville, N. Y.
 Johns, Thomas M., Baltimore
 Kallinsky, Sigmund R., Baltimore
 Kaufman, Norman, Baltimore
 Keating, Thomas, Jr., Centreville
 King, David D., Baltimore
 Kirwan, Katharine, Towson
 Klein, Nathan, Baltimore
 Knight, Edwin J., Baltimore
 Kramer, Herman W., Baltimore
 Kramer, John E., Baltimore
 Kriegel, Leo, Baltimore
 Krieger, Abraham, Baltimore
 Kurland, Edwin L., Baltimore
 Kurland, Milton B., Baltimore
 Lambert, Milton F., Baltimore
 Landers, Stewart, Newport, R. I.
 Lankford, Henry J., Norfolk, Va.
 LeBrun, George D., Baltimore
 Legg, John H. E., Centreville
 Levin, Isidore E., Baltimore
 Levin, Louis, Baltimore
 LeViness, Charles T., Baltimore
 Levy, Herman F., Baltimore
 Levy, Julius S., Baltimore
 Lloret, Rafael G., Bulacan, Philippines

Lloyd, William T., Baltimore
 Lober, Albert F., Baltimore
 McAllister, Lloyd Goldsborough, Vienna
 McDonnell, Joseph E., Baltimore
 McGovern, Joseph F., Baltimore
 McKeldin, Theodore R., Baltimore
 Maher, Edward A., Baltimore
 Mallik, Emil T., Baltimore
 Marbury, Charles C., Upper Marlboro
 Mazar, Alfred, Baltimore
 Mele, Amelia M., Baltimore
 Miller, Goldie R., Baltimore
 Miller, Harry M., Baltimore
 Mortillaro, Louis D., Baltimore
 Moshkevich, Max, Baltimore
 Mullikin, Oliver S., Easton
 Murray, James H., Ellicott City
 Myers, Willis A., Baltimore
 Narunsky, Jerome H., Baltimore
 Novak, Joseph S., Jr., Baltimore
 Obrecht, Charles F., Baltimore
 O'Dell, Edward C., Baltimore
 Parlett, Edward L., Baltimore
 Pausch, George, Baltimore
 Pekar, Rufus J., Baltimore
 Perego, Ellis, Baltimore
 Perel, Samuel, Baltimore
 Perry, Merrill G., Goldsboro
 Pittman, Martin L., Baltimore
 Pritchett, Willye J., Jr., Bishop's Head
 Proser, Bernard U., Baltimore
 Putzel, Edward L., Baltimore
 Race, Allan M., Baltimore
 Real, Carroll A., Catonsville
 Reed, Robert L., Brunswick
 Richardson, Stanley L., Baltimore
 Riddle, William E., Woodlawn
 Riley, Wagner W. M., Baltimore
 Rose, Douglas H., Baltimore
 Rosenstock, Benjamin B., Frederick
 Rosenstock, Ezra, Westminster
 Rostovsky, Abraham, Baltimore
 Rothel, Adelbert L., Baltimore
 Russell, Frank J., Baltimore
 Samuelson, Walter, Baltimore
 Sandroek, Julius F., Baltimore
 Schilber, David L., Baltimore
 Schmidt, George J., Baltimore
 Scholtz, Erwin V., Baltimore
 Schwinn, Leslie B., Baltimore
 Shefferman, Julius, Baltimore
 Shehan, William H., Baltimore
 Sherlock, Thomas P., Baltimore
 Schmuckler, Benjamin, Baltimore
 Silesky, Hamilton A., Baltimore
 Silver, Morris L., Baltimore
 Silverman, Benjamin H., Portsmouth, Va.

Sinnott, Katherine, Baltimore
 Smith, Edward A., Baltimore
 Smith, John R., Baltimore
 Smith, Nicholas McC., Baltimore
 Snyder, Edwin A., Baltimore
 Snyder, John P., Providence, R. I.
 Sopher, Harry, Baltimore
 Sowers, William R., Annapolis
 Spector, Joseph W., Baltimore
 Stine, Isaac F., Winchester, Va.
 Stonestreet, Henrietta D., Baltimore
 Stuhlman, Oscar, Baltimore
 Sybert, Cornelius F., Elkridge
 Sykes, Alfred J., Baltimore
 Taylor, Charles R., Baltimore
 Taylor, Wilson E., Baltimore
 Thomas, Eugene M., Jr., Baltimore
 Thompson, Richard H., Baltimore
 Tongue, Franklin M., Solomon's

Townsend, Miles D., Reisterstown
 Trew, Bartus, Baltimore
 Truitt, Alfred T., Pittsville
 Vorsteg, Ethel R., Baltimore
 Walbeck, James M., Forest Hill
 Walker, Owen, Baltimore
 Wase, Joseph, Baltimore
 Watkins, Robert D., Mt. Washington
 Weil, Isador, Baltimore
 White, Beulah M., Baltimore
 Williams, Donald C., Mt. Washington
 Williams, Donald Howard, Halethorpe
 Williams, Max, Baltimore
 Winter, Harry, Baltimore
 Wolfe, Philip, Baltimore
 Wrightson, William D. G., Baltimore
 Yarmosky, Morris, Baltimore
 Zwick, Henry Ludwig, Baltimore

SCHOOL OF MEDICINE

POST-GRADUATE

Snyder, George A., Island Falls, Me.

SENIOR CLASS

Beck, Nathaniel M., Baltimore
 Belenky, Jacob, Brooklyn, N. Y.
 Berkson, Morris I., Pittsburgh, Pa.
 Bowers, Thaddeus R., Littleton, N. C.
 Dart, Frederick B., Nantic, Conn.
 Desane, Joseph, Long Island City, N. Y.
 Edmonds, John M., Harton, Mich.
 Fleshman, D. L., Pence Springs, W. Va.
 Giffin, Theodore C., Rowlesburg, W. Va.
 Goldberg, Ben, Spring Valley, N. Y.
 Gordon, Abraham S., Bronx, N. Y.
 Grose, Robert G., Harmony, N. C.
 Gutowski, Joseph M., Perth Amboy, N. J.
 Haddock, D. A., Calais, Me.
 Hagerman, Paul, Cameron, W. Va.
 Harp, J. Elmer, Hagerstown
 Hirsch, Philip, New York City
 Hundley, John T., Jr., Lynchburg, Va.
 Hunt, William B., Lexington, N. C.
 Jennette, William C., Fremont, N. C.
 Keith, Marion Y., Wilmington, N. C.
 Knipp, George A., Baltimore
 Kraut, Arthur M., Jersey City, N. J.
 Kyper, Frederick T., Clearfield, Pa.
 Lally, Leo A., Scranton, Pa.
 Long, Ira C., Morehead City, N. C.
 Love, William S., Baltimore
 McCullough, C. S. L., Pittsburgh, Pa.

McLean, Herbert, Jersey City, N. J.
 Moler, Raleigh M., Morgantown, W. Va.
 Murray, Robert L., St. Pauls, N. C.
 Myers, Karl Johnson, Philippi, W. Va.
 Newcomer, David R., Hagerstown
 Peterman, James E., Baltimore
 Povalski, Alexander W., Jersey City, N. J.
 Prather, Fonzo G., Burnt House, W. Va.
 Renichi, Murano, Tokyo, Japan
 Rothfuss, Paul A., Montoursville, Pa.
 Ruche, Harry C., Philadelphia, Pa.
 Saurborne, Sylvia B., Bridgeport, W. Va.
 Schorr, Richard, New York City
 Shealy, Walter H., Leesville, S. C.
 Sherman, Louis, Brooklyn, N. Y.
 Smith, Charles F., Uniontown, Pa.
 Snaith, Theresa O., Weston, W. Va.
 Sowers, Roy Gerodd, Linwood, N. C.
 Steincrohn, Peter J., Hartford, Conn.
 Sussman, Abram A., Baltimore
 Touhey, T. J., Wilmington, Del.
 Walker, Wallace W., Winona, W. Va.
 Wasserstrom, Sidney, Brooklyn, N. Y.
 Weinert, Henry V., Jersey City, N. J.
 Welton, William A., Petersburg, W. Va.
 Werner, Walter I., Cleveland, O.
 White, James F., Morgantown, W. Va.

JUNIOR CLASS

Anderson, Albert L., Annapolis
 Anderson, Richard S., Whitaker, N. C.
 Antonius, Nicholas, Orange, N. J.
 Aycock, Thomas B., Pikeville, N. C.
 Barnes, D. Keith, Raysville, Utah
 Boyd, Kenneth B., Baltimore
 Nicholas, N. B., Philadelphia, Pa.
 Best, DeLeon E., Warsaw, N. C.
 Bell, Roy A., Shepherdstown, W. Va.
 Beerman, Herman M., Johnstown, Pa.
 Berenfield, Simon, Pittsburgh, Pa.
 Caso, Jose, Santurce, Porto Rico
 Clamson, T. A., Jr., Salt Lake City, Utah
 Daughtridge, A. L., Rocky Mount, N. C.
 Davenport, Carlton A., Mackeys, N. C.
 Dean, Hugh E., Salt Lake City, Utah
 Edelman, E. I., Woodhaven, L. I., N. Y.
 Felger, Walter B., Canton, Ohio
 Fields, Daniel A., Laurinburg, N. C.
 Finegold, Abraham, Carnegie, Pa.
 Fisher, Harry R., New York, N. Y.
 Flax, Ira I., Newark, N. J.
 Frehling, Joseph M., Louisville, Ky.
 Friedman, Bernard, New York, N. Y.
 Friedman, Irving, Newark, N. J.
 Given, Arnold I., Elkview, W. Va.
 Goff, John T., Burnt House, W. Va.
 Golembe, Julius, New York City
 Granoff, Jerry F., Brooklyn, N. Y.
 Greifinger, Marcus H., Newark, N. J.
 Grossblatt, Philip, Newark, N. J.
 Howell, Clewell, Vineland, N. C.
 Jacobson, Philip, Baltimore
 Kafka, Maximilian M., Brooklyn, N. Y.
 Knox, Joseph C., Leland, N. C.
 Kratz, Fred W., Baltimore
 Leibensperger, George F., Kutztown, Pa.
 Levine, Samuel, Union, N. J.
 Marsh, James T., Baltimore
 Marton, Samuel, New York City
 Maseritz, Isadore, Baltimore
 Maurillo, Dominick F., Brooklyn, N. Y.
 McConnell, Harvey R., Chester, S. C.

McZane, William O., Jr., Frostburg
 Megahan, Burke, Williamsport, Pa.
 Messinger, Benjamin, New York, N. Y.
 Miller, Benjamin, Baltimore
 Miller, Jacob, Baltimore
 Miller, Joseph G., Baltimore
 Monroe, Clement R., West End, N. C.
 Montani, Anthony C., Youngstown, Ohio
 Moriarty, Louis, So. Manchester, Conn.
 Morris, Philip, Brooklyn, N. Y.
 Morrison, Wm. H., Jr., Philadelphia, Pa.
 Motta, Peter G., Carnegie, Pa.
 Neustaedter, Theodore, New York City
 Nocera, Domingo, Mayaguez, Porto Rico
 Norment, John E., Baltimore
 Pachtman, Isadore, Braddock, Pa.
 Parks, Walter B., Huntersville, N. C.
 Perry, Archibald H., Louisburg, N. C.
 Pitkowsky, Louis K., New York City
 Roberts, Bennett W., Gatesville, N. C.
 Robertson, Edwin M., Woodsdale, N. C.
 Salvati, Leo H., Monongah, W. Va.
 Scagnetti, Albert, Congers, N. Y.
 Scheindlinger, Morris I., Baltimore
 Schlenger, Leo B., Paterson, N. J.
 Schultz, Louis A., New York City
 Schwab, Joseph H., Woodhaven, N. Y.
 Scimeca, Antonio A., Brooklyn, N. Y.
 Seliger, Robert V., New York City
 Shapiro, Ralph, Newark, N. J.
 Sherman, Maurice A., Hazelwood, Pa.
 Siegel, Samuel, Cleveland, Ohio
 Simpson, Henry H., Altamohaw, N. C.
 Staack, Felix Cecil, McMechen, W. Va.
 Tabershaw, Arnold L., Brooklyn, N. Y.
 Talbott, Richard B., Elkins, W. Va.
 Theuerkauf, Frank J., Erie, Pa.
 Ward, Titus William, Ryland, N. C.
 Warren, Bryan P., Blounts Creek, N. C.
 Weinstock, Alexander A., Brooklyn, N. Y.
 Whaley, Thomas B., Berlin
 Winstead, John L., Elm City, N. C.
 Zaslow, John, Woodridge, N. Y.

SOPHOMORE CLASS

Aarache, Pedro, Aquadilla, Porto Rico
 Balcerzak, Stanley P., Wabash, Pa.
 Bentz, Felix John, New Britain, Conn.
 Bizub, Emil Nicholas, Passaic, N. J.
 Brown, Leo T., Washington, D. C.
 Cadle, William R., Frederick Junction
 Cardinale, Pasquale F., Newark, N. J.
 Cassidy, John J., Wilmington, Del.
 Clahr, Abraham A., New York City
 Coe, John M., Brandywine

Coonan, Thomas J., Westminster
 Cope, Arthur A., Hamburg, Pa.
 DeVincentis, Henry, Orange, N. J.
 Donohoe, Edward C., Greensburg, Pa.
 Draper, Leonidas McF., Warrenton, N. C.
 Dreskin, Jacob L., E. Orange, N. J.
 Dwyer, Daniel R., Waterbury, Conn.
 Eastland, John S., Darien Center, N. Y.
 Elgin, Lee W., Baltimore
 Ellis, Francis A., Baltimore

Epstein, Harry H., Brooklyn, N. Y.
 Everett, Franklin R., Millington
 Fancher, Henry W., Jr., Winsted, Conn.
 Farber, Raphael, Wellsboro, Pa.
 Fields, Abijah C., Ensley, Ala.
 Fine, Morris A., Baltimore
 Fischman, Harold H., Newark, N. J.
 Fishof, Frank, New York City
 Fuchs, Abner M., New York, N. Y.
 Gale, Louis H., Erie, Pa.
 Gaston, William B., Clarksburg, W. Va.
 Gattens, Wilbur E., Cumberland
 Glick, Samuel, Baltimore
 Grandfield, Robert F., Dorchester, Mass.
 Grimm, Wilson O., Buckhannon, W. Va.
 Hertz, Ben, New York City
 Hibbitts, John T., Baltimore
 Hulla, Jaroslav, Baltimore
 Jacobs, Morris A., Baltimore
 Keating, John P., Sandy Hook, Conn.
 Kelley, Edward B., Carbondale, Pa.
 Knotts, William K., Sudlersville
 Lalley, Paul F., Scranton, Pa.
 Laus, Edward R., New York, N. Y.
 Linde, S. A., Baltimore
 London, Daniel, Brooklyn, N. Y.
 Lowe, Claude M., Fawn Grove, Pa.
 Metsky, Joseph, Newark, N. J.
 Miller, Edgar R., New Freedom, Pa.
 Minnefor, Charles A., Newark, N. J.
 Morales, Jaime V., Rio Piedras, P. R.
 Mullenusky, Joseph J., Shenandoah, Pa.
 Muncy, John W., Welch, W. Va.

Nataro, Joseph, Newark, N. J.
 Nathan, Herbert Alpha, Oakhurst, N. J.
 Navarro, Vicente A., Cadiz, P. I.
 Nimaroff, Meyer, Irvington, N. J.
 Nock, Randolph M., Stockton
 Orton, L. R., Baltimore
 Oshrin, Henry, Jersey City, N. J.
 Ottenberg, Gilbert, Washington, D. C.
 Pierce, James L., Marianna, Fla.
 Pinsky, Myer M., Camden, N. J.
 Plassnig, Edwin, Baltimore
 Polizzotti, Joseph L., Paterson, N. J.
 Poplack, Samuel L., New Haven, Conn.
 Pulaski, Leo E., Shenandoah, Pa.
 Rathsprecher, Isadore, Newark, N. J.
 Rodriguez, Rafael M., San Juan, P. R.
 Rosenstein, Jack, New York City
 Sarnoff, Jack, New York City
 Schacter, Eugene J., North Braddock, Pa.
 Seiken, George, Liberty, N. Y.
 Silverstein, Jacob M., Millburn, N. J.
 Simon, Joseph R., Pittsburgh, Pa.
 Sinton, William A., Newport News, Va.
 Straka, Robert P., Homestead, Pa.
 Sulman, William, Reading, Pa.
 Tomaivoli, Michael F., Hoboken, N. J.
 Turner, Thomas B., Frederick
 Visconti, Joseph A., Hoboken, N. J.
 Wassersweig, Martin M., Reading, Pa.
 Weintraub, Harry, Baltimore
 Wiener, Joseph, Bensonhurst, N. Y.
 Zimmerman, Charles C., Cumberland

FRESHMAN CLASS

Alperin, Benjamin, Brooklyn, N. Y.
 Anker, Harry, Brooklyn, N. Y.
 Askin, Aaron J., Baltimore
 Baker, Norman W., Reisterstown
 Ballard, Maggie B., Greenville, W. Va.
 Barranco, Salvatore H., Baltimore
 Beamon, Horace V., Savage, N. C.
 Beachley, Jack H., Hagerstown
 Bennett, Luther H., Akron, Ohio
 Bloch, Adolph, Passaic, N. J.
 Bronstein, Irving, Brooklyn, N. Y.
 Buccieri, Samuel F., Steelton, Pa.
 Caplan, Samuel H., Ellicott City
 Campbell, Brice, Pleasant City, Ohio
 *Castagna, Joseph V., Baltimore
 Castronovo, Joseph, Providence, R. I.
 Clemson, Earle P., Baltimore
 Cohen, Morris, Baltimore
 Coniff, Arthur A., Baltimore
 Connell, Albert J., Carbondale, Pa.
 D'Angelo, Antonio F., Providence
 Davis, Henry V., Berlin, Md.

Diamond, H. Elias, New York City
 DiPaula, Frank R., Baltimore
 DiPaula, Samuel R., Baltimore
 Eanet, Paul, Washington, D. C.
 Edmonds, Charles W., Baltimore
 Efron, Bernard G., Baltimore
 Feemster, Olive S., Baltimore
 Feldman, Solomon C., Baltimore
 Finkelstein, Abraham H., Brooklyn, N. Y.
 Freedman, Herman, Freehold, N. J.
 Freedman, Max, Newark, N. J.
 French, August M., Vessie, Ky.
 Freuder, Arthur N., Coney Island, N. Y.
 Gahan, Emanuel, New York City
 Gerber, Isadore, Baltimore
 Gomez, Pedro J., Nicaragua, C. A.
 Gordon, Abel, Passaic, N. J.
 Graham, Kenneth L., Baltimore
 Gulck, Georg K., Aalborg, Denmark
 Hecht, Lawrence W., Havre de Grace
 Helfond, David M., Brooklyn, N. Y.
 Hyman, Calvin, Baltimore

Jensen, Jacob R., Aalborg, Denmark
 Jolson, Meyer S., Baltimore
 Karns, Clyde F., Cumberland
 Knapp, Alphonse J., Columbia, Pa.
 Kralikauckas, Joseph, Newark, N. J.
 Lavy, Louis T., Baltimore
 Levanovich, Charles J., Baltimore
 Levin, H. Edmund, Baltimore
 Levin, Joseph, Newark, N. J.
 Lista, Louis J., Clarksburg, W. Va.
 Lumpkin, Lloyd U., Baltimore
 Lusby, Frank F., Baltimore
 Manginelli, Emanuel, New York City
 Martino, George C., Newark, N. J.
 Matassa, Vincent L., Baltimore
 Mattikow, Bernard, Brooklyn, N. Y.
 Merva, Andrew J., Nanticoke, Pa.
 Meyls, George Adam, Jr., Baltimore
 Miller, Harry, New York City
 Misenheimer, Ed A., Concord, N. C.
 Moriconi, Albert F., Trenton, N. J.
 Nanigian, Elizabeth, Paxton, Mass.
 Nanigian, Mary, Paxton, Mass.
 Naylor, S. T., Oakland
 Newman, Richard D., Smithsburg
 Norment, Clinton C., Baltimore
 O'Boyle, Thomas J., Scranton, Pa.
 Plitt, Frieda R., Baltimore
 Polsue, William C., Charleston, W. Va.
 Radest, Louis J., Brooklyn, N. Y.
 Rattenni, Arthur, Providence, R. I.
 Reifschneider, Herbert E., Baltimore
 Rex, Elmer G., Reinersville, O.

Roberts, William F., Naugatuck, Conn.
 Robertson, Harold S., Somerville, Mass.
 Rocco, Frank, Newark, N. J.
 Roseman, Ned, Bronx, N. Y.
 Rosenberg, Albert A., Wilkinsburg, Pa.
 Rosenfeld, Max H., Baltimore
 Rothberg, Abraham S., New York City
 Sashin, David, New York City
 Sax, Benjamin J., New York City
 Scheuker, Paul, Baltimore
 Schmukler, Jacob, Newark, N. J.
 Schneider, David, Baltimore
 Schuman, William, Baltimore
 Schwartz, Ralph A., Newark, N. J.
 Shank, Louis W., Baltimore
 Sherman, Elizabeth B., Front Royal, Va.
 Shortess, George S., Baltimore
 Smith, Jesse E., Westminster
 Smith, Paul L., Altoona, Pa.
 Spano, Frank, West New York, N. J.
 Susser, Max H., Bayonne, N. J.
 Taub, Samuel, New York City
 Tayntor, Lewis O., Salisbury
 Teitelbaum, Maurice L., Brooklyn, N. Y.
 Tenaglia, Eutimio D., Providence, R. I.
 Thompson, Thomas P., Forest Hill
 Tobias, Herbert R., Hancock, Md.
 Totterdale, William G., Baltimore
 Weinstein, Samuel, Freehold, N. J.
 Weiss, Louis L., Brooklyn, N. Y.
 Weseley, Louis J., Brooklyn, N. Y.
 Winkler, Morris, Sharon, Pa.
 Wolfe, Samuel B., Baltimore

SCHOOL FOR NURSES

SENIOR CLASS

Bishop, Maud, Norfolk, Va.
 Boyd, Ruth, Street
 Dunn, Helen L., Baltimore
 Garvey, Kathryn A., Oil City, Pa.
 Graham, Pearl B., Baltimore
 Harkins, Hulda, Street
 Hazen, Dorothy L., Union City, Pa.
 Herrington, Mazie, Meadville, Pa.
 Hoffman, Martha M., Smithsburg
 Hoke, Lillie R., Baltimore
 Horst, Kathryn E., Hagerstown
 Kish, Vilma C., Trenton, N. Y.

Maxwell, Irene A., Baltimore
 McCann, Wilhelmina N., Street
 Nagel, Ida M., Federalsburg
 Pratt, Anna E., Baltimore
 Reade, Kathryn A., Harborton, Va.
 Schroeder, Marie, Cambridge
 Stailey, Margaret, Liverpool, Pa.
 Teeple, Helen S., Baltimore
 Toms, Kittie R., Funkstown
 West, Regina M., Martinsburg, W. Va.
 White, Ruth A., Federalsburg

INTERMEDIATE CLASS

Alexander, Edith L., Matthews, N. C.
 Appleton, Pauline V., Punxsutawney, Pa.
 Barnes, Mirian U., Nashville, N. C.
 Bell, Janet M., Waterbury, Conn.
 Bennett, Alice M., Baltimore

Bennett, Bertha P., Sharptown
 Brude, Lucy A., Baltimore
 Callaway, Esther A., Bridgeville, Del.
 Compton, Pinkie L., Ronceverte, W. Va.
 Copenhaver, Elizabeth E., Bel Air

Davis, Marie M., Frostburg
 Davis, Ruth E., Federalsburg
 Fisher, Mary E., Cumberland
 Forrest, Lola R., Keymar
 Griffith, Myrtle, Princeton, Ind.
 Headley, Sarah P., Village, Va.
 Hughes, Claire, Baltimore
 Kraft, Dorothy C., Ellicott City
 McCormick, Margaret J., North Adams, Mass.
 Moore, Rachel, Cambridge
 Morgart, J. Helen, Rainsburg, Pa.
 Pope, Jane, Fayetteville, N. C.

Putt, Bernice G., Saxton, Pa.
 Rowe, Sarah E., Keedysville
 Schaale, Bernice D., Baltimore
 Scott, Jane, Eckhart
 Shaffer, Mary C., Westminster
 Slez, Irene M., Millington
 Spencer, Lenora F., Westminster
 Sponsler, Mary, Petersburg, Pa.
 Thomas, Kathryn A., East Mauch Chunk, Pa.
 Thompson, Icelene, Street
 Tillinghast, Robina H., Fayetteville, N. C.
 Whitworth, Esther W., Elkton

JUNIOR CLASS

Barnsley, Martha, Olney
 Barr, Alberta, Port Deposit
 Cannon, Elizabeth, Seaford, Del.
 Coleman, Pearl, Burgess Store, Va.
 Coulter, Zelder, Newton, N. C.
 Croll, Mildred M., Federalsburg
 Forrest, Louise, Gettysburg, Pa.
 Frick, Esther E., Waynesboro, Pa.
 Garman, Helen M., Waynesboro, Pa.
 Hathcock, Mary A., Norwood, N. C.
 Haugh, Hazel C., Waynesboro, Pa.
 Hood, Dorothy, Baltimore
 Kirtner, Mattie, Radford, Va.
 McWhirter, Grace, Winston-Salem, N. C.

Mitchell, Gladys, Gaithersburg
 Moore, Kate, Claxton, Ga.
 Nock, Myrtle, Pocomoke
 Rankin, Margaret, Norfolk, Va.
 Scarborough, Annie L., Delta, Pa.
 Scarborough, Marietta, Georgetown, Del.
 Scott, Mary, Baltimore
 Shatzer, Myrtle, Cumberland
 Shoemaker, Charlotte, Huntingdon
 Stafford, Alyce, Connellsville, Pa.
 Wall, Laura, Nashville, N. C.
 Walter, Charlotte, Westminster
 Wertz, Gladys A., Batesburg, S. C.
 Whitley, Estelle, Albemarle, N. C.

SCHOOL OF PHARMACY

THIRD-YEAR CLASS

Andrews, Marvin Jackson, Bristol, Tenn.

SECOND-YEAR CLASS

Albrecht, Walter E., Baltimore
 Baker, Israel, Baltimore
 Barall, William L., Towson
 Basil, George C., Annapolis
 Block, Solomon G., Phoebus, Va.
 Carliner, Louis A., Baltimore
 Chertkof, Frieda, Mt. Washington
 Cohen, Bernard J., Baltimore
 Coplin, Louis I., Baltimore
 Donnet, John, Baltimore
 Eldridge, Arthur C., Myersville
 Ernst, Myrle P., Gettysburg, Pa.
 Fields, Lorraine D., Pikesville
 Finkelstein, Morris L., Baltimore
 Flom, Charles, Baltimore
 Freiman, Harry, Baltimore
 Glass, Louis, Baltimore
 Hecker, Nathan, Baltimore
 Hinton, Murray S., Baltimore

Kalb, Francis P., Baltimore
 Katz, Benjamin R., Baltimore
 Kelley, Guy C., Salisbury
 Kirson, Abe R., Baltimore
 Kramer, Morris, Baltimore
 Leibowitz, Louis, Laurel, Del.
 Levin, Harry, Baltimore
 Marmor, Leon, Baltimore
 Mattox, William H., Elberton, Ga.
 Mears, Chase K., Nassawadox, Va.
 Mears, Lee K., Salisbury, Md.
 Moran, John E., Manchester, N. H.
 Mullen, Charles L., Hagerstown
 Musgrove, W. Gilbert, Baltimore
 Neel, Jerrold W., Baltimore
 Norton, Mrs. Edward, Laurel, Md.
 Pelaez, y Bringas, Jose M., Santiago, Cuba
 Ritt, Paul E., Baltimore

Rockman, Morris, Baltimore
 Rosenthal, Emanuel, Baltimore
 Rosenthal, Lewis R., Baltimore
 Shea, Harold J., Baltimore
 Sheehan, John L., Hillsboro, N. H.
 Stacy, Theodore E., Jr., Baltimore

Stagmer, Owen R., Baltimore
 VanSlyke, Amos R., Overlea
 Voigt, Herman A., Baltimore
 Wagner, Raphael H., Baltimore
 Weinberg, Sol B., Staunton, Va.
 Wright, Lawrence Malcolm, Baltimore

FIRST-YEAR CLASS

Archer, Theodore, Joppa
 Barnes, Robert D., Baltimore
 Bettigole, Philip, Baltimore
 Bindok, Edward J., Baltimore
 Bleckman, Charles, Baltimore
 Block, Frank, Baltimore
 Calmen, Elmon H., Baltimore
 Carrera, Thomas C., Fajardo, P. R.
 Carey, Alford R., Towson
 Cohn, Nathan, Baltimore
 Corrado, Ernest M., Atlantic City, N. J.
 Cowan, William C., Roslyn
 Davidov, Louis, Baltimore
 Davies, Sydney P., Baltimore
 Fedder, Eli, Baltimore
 Finkelstein, David, Baltimore
 Fisher, Edward H., Catonsville
 Fisher, Michael A., Swissvale, Pa.
 Gaver, Paul G., Myersville
 Gerber, Minnie, Hagerstown
 Goldberg, Victor, Baltimore
 Goodman, Jerome, Baltimore
 Greenberg, Harry, Baltimore
 Hampson, Carol A., Baltimore
 Hantman, Harry H., Baltimore
 Harryman, Chauncey B., Mt. Washington
 Hayes, William B., Baltimore
 Henderson, Upshur K., Bridgetown, Va.
 Higger, Samuel, Baltimore
 Hirschowitz, Reuben J., Baltimore
 Hope, John William, Hampton, Va.
 Hopkins, Josephine E., Linthicum Heights
 Jones, Charles H., Baltimore
 Jones, Henry Alvan, Baltimore
 Kern, Joseph, Baltimore
 King, Melvin L., Westminster
 Kirson, Abraham, Baltimore
 Kolman, Minnie Freda, Baltimore
 Kronthal, Jacob L., Baltimore
 LeGrande, George W., Crewe
 Levin, Abraham, Baltimore
 Levin, Bernard, Baltimore
 Levin, Morton, Baltimore
 Little, Luther E., Darlington
 McCormick, Arthur F., Chateaugay, N. Y.
 McKay, William K., Luray, Va.

Marciniak, Edward S., Perth Amboy, N. J.
 Matthews, Vincent W., Baltimore
 Meikle, John D., Baltimore
 Miller, Leo, New York City
 Millman, Morton Max, Baltimore
 Monen, Joseph B., Baltimore
 Parsons, Herman, Ocean City
 Paulson, Aaron A., Baltimore
 Pass, Victor E., Baltimore
 Pfeifer, Edward, Baltimore
 Poltilove, George J., Baltimore
 Raap, Irvin L., Baltimore
 Reamer, Israel T., Baltimore
 Robinson, Robert, Baltimore
 Rodman, Morris, Baltimore
 Rubin, Mortimer, Baltimore
 Rubinstein, Hyman Solomon, Baltimore
 Samuelson, Oscar, Baltimore
 Sanner, Richard T., Westernport
 Scher, Michael, Baltimore
 Schlein, Maurice, Baltimore
 Schmidt, Charles J., Baltimore
 Schmidt, George M., Baltimore
 Schoenfeld, Benjamin, Baltimore
 Schuster, John N., Baltimore
 Shapiro, Henry, Baltimore
 Slama, Frank J., Baltimore
 Smith, Francis E., Clarksburg, W. Va.
 Solomon, S. S., Baltimore
 Sothoron, Levin J., Mechanicsville
 Sloan, James J., Fairmont, W. Va.
 Staley, C. B., Fallston
 Straun, James S., Connellsville, Pa.
 Sussman, Hyman J., Woodbine, N. J.
 Swiskowski, Frank L., Baltimore
 Von Schulz, Augustine Paul, Baltimore
 Voshell, Harvey W., Centerville
 Tenner, David, Baltimore
 Vidal, Manuel J., Santiago de Cuba, Cuba
 Walter, Frank P., Kennett Square, Pa.
 Warfield, Harry N., Baltimore
 Warrenfeltz, J. F. F., Hagerstown
 Weiner, Solomon, Baltimore
 Wilkerson, Albert R., Baltimore
 Wilson, Julian F., DuBois, Pa.
 Wright, Edna Kirk, Baltimore

SPECIAL STUDENTS

Ginsburg, Abraham, Baltimore
Krauss, Louis H., Baltimore
Lovely, Paul R., Manchester, N. H.

THE SUMMER SCHOOL—1922

Adams, J. Holland (Mrs.), Waldorf
Allen, Kenneth, Berwyn
Anderson, Janet T., Ocean
Andrews, Virginia L., Cumberland
Avery, Helena D., Washington, D. C.
*Bacon, Ada E., Glencoe
Baden, Edna I., Baden
Baldwin, Nora I., Collington
Baldwin, Virgie M., Savage
Banfield, Frank W., Takoma Park, D. C.
Barnhart, Emma J., Hancock
Barnhart, Orintha P., Hancock
Bartlett, Edith V., Cumberland
Bass, Mamie L., Churchton
Bassett, Mary E., Vienna
Beall, Clarkson J., Summit, N. J.
Bean, Lillian W., Waldorf
Bean, Violet M., Great Mills
Beitzell, Josephine M., Abells
Bennett, Benjamin H., Washington, D. C.
Bennett, Pauline M., Elkton
Bennett, Ruth Leona, Artermas, Pa.
Beyer, Elsie, Rognel Heights
Billingsley, G. Katarah, Brandywine
Biggs, Grace M., Jessup
*Bland, Harriet W., Sparks
Blonskey, Lula M., Cumberland
Bloom, Louise M., Ellicott City
Bollinger, Peary R., Reisterstown
Bonnett, Harold M., Hyattsville
Boston, Marguerite E., Cumberland
*Boswell, Victor R., Columbia, Mo.
Bowling, Marybeth, Marlboro
Brady, Angela, Frostburg
Bragg, John H., Washington, D. C.
Brain, Earl F., Midlothian
Branner, Cecil G., Pocomoke
Branner, Ruth M., Dover, Del.
Branson, James H., Douglas, Ga.
Bray, Nona D., Hyattsville
Bray, Walter C., Emporia, Va.
Brinsfield, Eva M., Rhodesdale
Brookbank, Annie V., Charlotte Hall
Brown, Kathrine, Centreville
Brown, Mabel C., St. George Island
Browne, Edward L., Chevy Chase
Buck, A. P. (Mrs.), Landover
Bullock, Earl M., Riverdale

Burns, Landon C., Burnsville, Va.
*Burroughs, John A., Clinton
Burroughs, James E., La Plata
Bussley, Madeleine M., Compton
Caldwell, John H., Galena
Callis, Cecil R., Washington, D. C.
Caltrider, Samuel P., Westminster
Campbell, Thomas A., Lanham
Carrick, Mary A., Washington, D. C.
Carroll, James G., Cumberland
Chassagne, Leo J., Baltimore
Cherry, Joseph C., Brownsville, Pa.
Cheseldine, Carrie L., Palmer's
Childress, Marguerithe P., Cumberland
Church, Carey F., Barnard, Vt.
Clagett, John H., Jr., Roslyn
Cleary, Hazel K., Mt. Airy
*Clendaniel, George W., Clarksville
Clinton, Sara F., Riverdale
Cochrane, Ethel L., La Plata
Cochrane, Laura C., Greensboro
Colbert, Alice, Washington, D. C.
Coleman, Veronica C., Cumberland
Collins, George T., Rosslyn, Va.
Collins, Mildred S., Preston
Condry, Irene, Frostburg
Coney, William, Jr., College Park
Connors, Paul M., Washington, D. C.
Connick, Edna M., Baden
Connick, Elmer L. (Mrs.), Baden
Connick, Wm. R. C., Baden
Conte, Marion V., Norfolk, Va.
Corey, Flora I., Worton
Coronel, Ulpiano, College Park
Coyle, John W., East Syracuse, N. Y.
Craig, Evelyn M., Elkton
Crane, Mary E., Harrington, Del.
Crews, Charles W., Riverdale
Crozier, Henry T., Ballston, Va.
Davis, Birdie V., Chaptico
Davis, Frank R., Darlington
Dawson, Georgetta, Mayo
Dawson, J. H., Falls Church, Va.
*Day, Frank D., Hyattsville
Dean, Blanch M., Elkton
Decker, Henry, Charleoi, Pa.
Dennis, General E., Greenrich, Va.
Dent, Frances J., Oakley

Dent, Howard M., Cedarville
Dent, Ida L., Oakley
*Dent, Lettie M., Oakley
Dix, Ethel M., Pocomoke City
Dixon, Ida W., Galloways
Dobbins, Wm. E., Lowell, Mass.
Dodson, William A., Culpeper, Va.
Donoho, Mary E., Oxford
Dorsey, Ethel A., Beltsville
Downs, Genevieve R., Poolesville
Dronenburg, Margaret E., Ijamsville
Dunning, Ernest C., Govans
Easterlin, Leonard P., Gainesville, Fla.
Ebbert, Asenath, Union Bridge
*Elder, James W., Cumberland
Elliott, Sarah V., Laurel
Engel, Margaret G., College Park
Engle, Ruth B., Frostburg
Ericson, Charlotte M., Riverdale
Espey, Agnes L., Hyattsville
*Euster, K. Wilson, Pocomoke City
*Evans, Josephine O., Washington, D. C.
Eveland, Ethel M., Hillsboro
Ewald, Margaret L., Mount Savage
Eyler, Marie A., Thurmont
Eyster, Mary E., Emmitsburg
Faer, Nellie R., Hurry
Faith, Gladys C., Clear Spring
Falkenstein, Ruth A., Baltimore
Farnsworth, Virginia B., Washington, D.C.
Fawsett, Anna E., Gaithersburg
Ferguson, W. M., Berwyn
Filbert, Edwin B., Baltimore
Flanagan, Sherman E., Walkersville
Flannery, Michael J., Washington, D. C.
Fleming, Gertrude R., Savage
Forsyth, Lewis V., Berwyn
Foster, Paul P., Washington, D. C.
Fowler, Annie L., Chaptico
Foxwell, Erva R., Leonardtown
Foxwell, Gertrude E., Leonardtown
Frank, Paul, College Park
Gaither, Anna W. B., Washington, D. C.
Ganoza, Louis F., Peru, S. A.
Gardner, Cleggit E., Williamsport
Garrett, Alpha, Frostburg
Garrott, Emily A., Knoxville
Garver, Kathryn M., Hagerstown
Gaver, Helen E., Mount Airy
Gibbons, Edna H., Princess Anne
Giffen, Sallie, Cumberland
Glass, Gerald L., Hyattsville
Glisan, Cora E., Libertytown
Goldberg, Belle Sherman, Baltimore
Goldberg, Mary B., Baltimore
Goldblatt, Leo A., Baltimore
Goodman, Nancy D., Beaverdam, Va.

Grabenstein, Mary E., Cumberland
*Graffin, Mildred W., Baltimore
Graham, Laura N., Cabin John
Grandfield, Robert F., Dorchester, Mass.
Graves, Ellen S., Loveville
Graves, Harvey C., Branchville
Green, Mary E., Boyds
Griffith, Eleanor C., Forestville
Grimes, Helen K., Cedarville
Grimm, Paul H., Trego
Grosskurth, William F., Washington, D. C.
Guy, Blanche M. L., Clements
Guyther, Claudia V., Valley Lee
Hall, Annie L., Glenndale
Hall, Harvey B., Frederick
Hancock, Hugh, Huddleston, Va.
Harper, Floyd H., College Park
Harrison, Alma V., Mt. Airy
Harrison, Louise, Davidsonville
Hawkins, Margaret A., Washington, D. C.
Hawthorne, Noah B., Jr., Round Hill, Va.
Hayden, Katharine S., Hurry
Hearold, John W., Miskinon, Va.
Heath, Frank M., Silver Spring
Heck, Marian V., Harman
Herbert, Evelyn, Severn
Hevessy, Michael, South Norwalk, Conn.
Hicks, Harry W., Kernstown, Va.
Hileman, Julia M., Frostburg
Hill, Elsie M., Cumberland
Hill, Miriam P., Upper Marlboro
Hill, William B., Hyattsville
Hoffman, John C., Adamstown
Hohman, Charles W., West, W. Va.
Holland, Arthur H., Cartersville, Va.
Holland, Eunice, Laurel
Hosken, Stella L., Frostburg
*Howland, Lionel B., Upper Marlboro
Hughes, Helen C., Benedict
Hull, George R., Woodsboro
Hull, Harry B., Hagerstown
Hunt, Eleanor E., Lonaconing
Hunt, Viola M., Lonaconing
James, Howard V., Williamsburg, Va.
*Jenkins, Harvey F., Concord, N. H.
Jewell, Edgar G., Poolesville
Jewell, Lillian E., Hamilton
Johnson, Leo C., District Line
Jones, Mildred L., Snow Hill
Kaetzel, Clarence W., Brunswick
Kefauver, J. Orville, Mt. Savage
Kefauver, J. O. (Mrs.), Mt. Savage
Keister, Monroe F., Midlothian
*Keller, Earl R., Middletown
Keller, Minnie S., Buckeystown
Kelly, Esther E., Hobbs
Kelly, Frank J., Beltsville

Kinsell, Hazel L., Clear Spring
 Knadler, Etelka F., Keedysville
 Knadler, Ruth W., Keedysville
 *Krabill, Verlin C., Burkittsville
 Krieger, Kathryn G., Baltimore
 *Kupjian, Gabriel, Takoma Park, D. C.
 Kwik, Pock, Djodjakarta, Java
 *Lagasse, Felix S., Lochmere, N. H.
 Lample, Charles S., Baltimore
 Langenfeldt, Marie E., Hyattsville
 *Lark, Cornelia E., Shamokin, Pa.
 Lawrence, Ruth J., Elk Mills
 Layman, Florence M., Baltimore
 Leary, Lois M., Baltimore
 Lease, Ruby D., Unionville
 Lescure, John M., Harrisburg, Pa.
 Lescure, William J., Harrisburg, Pa.
 *Lichtenwalner, D. C., Riverdale
 Lighter, Mary K., Middletown
 Lincoln, Leonard B., Takoma Park
 Lint, David L., Washington, D. C.
 Llewellyn, Carrington P., Esmont, Va.
 Long, L. S., Washington, D. C.
 Lowman, Clarence A., Funkstown
 Lucas, Jane, Cumberland
 Ludlum, Samuel L., Chevy Chase
 Lynn, Charles S., College Park
 *MacKay, Anna P., Clinton
 Malcolm, Wilbur G., Barton
 Manley, Anna, Midland
 Manley, Mary M., Midland
 Manning, Roger I., Accokeek
 Manthey, Felix L., College Park
 Marriotte, Nina V., Lander
 Martin, Virgil E., Atlanta, Ga.
 Martz, Ada E., Frederick City
 *Martz, Grace S., Frederick
 Mauzy, James L., Harman, W. Va.
 Maxwell, Haddy O., Kingston, N. Y.
 McAllister, Emily D., Elkton
 McArdle, Madeline C., Washington, D. C.
 McAtee, Evelyn W., Germantown
 McAvoy, James R., College Park
 McCarthy, Harry L., Brookeville
 McConnell, Hattie B., Preston
 McCoy, Maud V., Beltsville
 McDonald, William F., Barton
 McGeady, Loretto, Cumberland
 McGlone, Joseph L., Baltimore
 McGregor, Elizabeth, Upper Marlboro
 McKnight, Sue, Cumberland
 McLain, Charles L., Washington, D. C.
 McNabb, Charles G., Ridgely
 Melown, Portia, Cumberland
 Mess, George B., Washington, D. C.
 Milburn, Rosa I., Charlotte Hall
 Miles, Zenobia, Upper Fairmount

Miller, Edith, Pinto
 Miller, Effie M., Beltsville
 Miller, Mary E., Elkton
 Miller, Ruby E., Clear Spring
 Miller, Ruth, Parkton
 Mitchell, Rosa A., Laurel
 Mitchell, William E., Berwyn
 Moffitt, Wm. J., Beltsville
 Moore, Addie M., Anacostia, D. C.
 Moore, Mary O., Centreville
 Moreland, Fannie E., Waldorf
 Morris, Alma, Abell
 Morris, Hilda V., Abell
 Morris, Sadie A., Abell
 Mortimer, Walter S., Neavitt
 *Morton, McKinley C., McConnellsburg, Pa.
 Moulton, Parthia C., Berwyn
 Mullen, Mason T., Baltimore
 Mullin, Vera D., Mt. Savage
 Mullinix, Margaret A., Woodbine
 Murray, Mabel N., Cumberland
 Mutz, Mary D., Omaha, Nebr.
 Myers, John A., Tom's Brook, Va.
 Nemphos, P. Charles, Baltimore
 Newkirk, Mabel I., Big Springs
 Newkirk, Nellie K., Big Spring
 Nicht, Anna M., Frostburg
 Nicol, Victorine G. Manassas, Va.
 Noble, Ruth Poole, Denton
 Nolan, Edna P., Mt. Rainier
 Noon, B. A., Cumberland
 Norris, Ada L., Great Mills
 Norris, Elmer A., Berwyn
 Norris, Lucille A., Great Mills
 Ogle, Edna K., Jefferson
 Ogle, Evelyn, Croome
 Oldenburg, Lillian J., Hyattsville
 Ollerenshaw, James J., Washington, D. C.
 Otter, John C. F., Raspeburg
 Owens, Lenora, Greenrock
 Parlett, William A., College Park
 Parr, Herbert F., Washington, D. C.
 Patrick, Olive J., Woodbine
 Payne, Olive G., Anacostia, D. C.
 Penman, Christene, Mt. Rainier
 Perdue, Dorothy, Salisbury
 Persinger, Harry B., Berwyn
 Peters, Elizabeth S., Sudlersville
 Pierce, John R., Washington, D. C.
 Poppen, Alvin W., Hyattsville
 Posey, Marian W., La Plata
 Powers, Selwyn L., Hyattsville
 *Preinkert, Alma H., Washington, D. C.
 Price, Ruth E., Sudley
 Pullen, Jesse P., Martinsville, Va.
 Pumphrey, Esther, Germantown
 Racine, Clara E., Childs

Raley, Frances R., Leonardtown
 Raley, Nellie T., Frostburg
 Raley, Zach. T., St. George Island
 Ramas, Jose, Riverdale
 Randol, Lucile L., Omaha, Nebr.
 Reed, Emmons H., Denton
 Reeder, May D., Morganza
 Richardson, Elizabeth S., Snow Hill
 Richardson, Harry F., Washington, D. C.
 Rider, Fanny R., Woodsboro
 Rieck, Adela A., Preston
 Ritter, Floyd V., Middletown, Va.
 Ritzel, Mary E., Westover
 Robinette, Catherine G., Flintstone
 Rodeheaver, Delbert C., Oakland
 Roelke, Laura D., Frederick
 Roelke, Mary E., New Market
 Roelke, Susie A., New Market
 Rogers, Annabell, Hyattsville
 Ross, Charles E., Oriole
 Rowe, George, Brentwood
 Rowe, Margaret A., Cumberland
 Runkles, Eader B., Mt. Airy
 Russell, George O., Norfolk, Va.
 Sampson, H. B., Branchville
 Schaefer, Edna M., Frederick
 Scharffetter, E. L., Washington, D. C.
 Schmedegaard, G. W., Washington, D. C.
 Screen, Isabelle, Cumberland
 Sears, Gustavus W., Clinton
 Selby, Hattie I., Cheltenham
 Senne, Henry L., Alexandria, Va.
 Shaffer, Harry H., Berwyn
 Shanholtz, Mary S., Glen Echo
 Shatzer, Lilla V., Cumberland
 Shepherd, Matson, Berwyn
 Shives, Margaret A., Hancock
 Shoemaker, Charles, Bethesda
 *Shoemaker, Henry R., Middletown
 Simpich, Ira M., Landover
 Simpson, Ella M., Milestown
 Simpson, Vivian V., Takoma Park, D. C.
 Skelley, Florence, Oldtown
 *Smith, Arthur M., College Park
 Smith, George F., Big Spring
 Smith, Nellie V., Flintstone
 Smith, Opal L., Landover
 Snively, Mary V., Keedysville
 Soper, Elsie M., Beltsville
 Soper, Sarah G., Beltsville
 Sparks, Elva, Barclay
 Sparks, Mary H., Sudlersville
 Specht, Bettie A., Tuscarara
 Spence, Lydia E., Baltimore
 Spence, Virginia, College Park
 Sprinkle, Paul C., Manassas, Va.
 Stanley, Edward A., Bluefield, W. Va.

Stewart, Ann S., Rustburg, Va.
 Stewart, Caroline L., Mitchellville
 Stewart, Harry Abernathy, Rustburg, Va.
 Strathman, George F., Baltimore
 Strawbridge, Viola, Freeland
 Stull, Robert B., Frederick
 Sullivan, Clifford E., Reisterstown
 Sullivan, Jeremiah J., Branchville
 Sussman, Abram A., Baltimore
 Tait, George S., Fairfax, Va.
 Tames, Katharine L., Hamilton
 Tammany, Charles A., Frederick
 Tan, H. L., Buitenzorg, Java
 Tarbell, Wm. E., Baltimore
 Taylor, Roland P., Preston
 Tayman, Mary M., Brandywine
 Teague, Ethel M., Elkton
 Teeter, Benj. F., Flintstone
 Thibault, Gabrielle, Washington
 Thomas, Effie B., Frostburg
 Thompson, Franklin H., Baltimore
 Thornburg, Stella M., Cedarville
 Tobin, William, Washington, D. C.
 Townshend, Mildred H., Bel Alton
 Trivanovitch, Vaso M., Zagreb, Yugoslavia
 Trower, Hugh C., Norfolk, Va.
 Twigg, Margaret M., Oldtown
 Twilley, Annette M., Hurlock
 Unkle, Lillian V., Piscataway
 Vaughn, Wm. J., Lotta, N. C.
 Vigus, Edwin E., Baltimore
 Vivanco, Carlos D., Peru, S. A.
 Voshell, Ruth E., Centreville
 Walker, Francis M., Washington, D. C.
 Walker, Mitchell P., Washington
 Wall, Michael F., Washington, D. C.
 Walls, Henry R., College Park
 Ward, Hilda M., Baden
 Wardles, Wm. I., Anacostia, D. C.
 Watkins, Myrtie E., Monrovia
 Weaver, Adah M., Keedysville
 Welch, Mary M., Ridge
 White, Arthur P., Pittsville
 White, Beulah I., Lonaconing
 White, Geo. A., College Park
 White, Saranna, Emmitsburg
 Whiteford, Michael W., Whiteford
 *Wickard, Harold C., Cumberland
 Widmyer, Charles L., Mt. Rainier
 Wiley, Benj. H., Bittering
 Willison, Aileen, Cumberland
 Willison, Henrietta R., Cumberland
 Wilson, Annie B., Laurel
 Wilson, Aseal S., Phoenix
 Wilson, Janice M., Keedysville
 Wilson, Lois, Keedysville

°Wolfe, Elsie I., Sugarloaf, Pa.
 Woodward, Amos R., Watersville
 Wood, Ellsworth, Washington, D. C.
 Worthington, Leland G., Hagerstown
 Wyand, Abbie V., Sharpsburg

Wyvill, Ruth C., Marlboro
 Young, Laura M., Cumberland
 Zentz, Dorothy, Thurmont
 Zies, Orintha B., Hancock

°Denotes graduate students in summer school.

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